PREFACE

This handbook sets forth general procedures to follow when conducting inspections of coal mines. Previously issued procedural and administrative instructions for this subject material are superseded by this handbook. Compliance instructions that are contained in the MSHA Program Policy Manual are not superseded by this handbook.

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COAL MINE SAFETY AND HEALTH

GENERAL INSPECTION PROCEDURES HANDBOOK

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Chapter 1 - Introduction

The objective of MSHA mine inspection and investigation activities is to ensure that a safe and healthful working environment is provided for miners. Inspection personnel work to achieve this objective in two ways: (1) by enforcing the Federal Mine Safety and Health Act of 1977 (Mine Act); and (2) by convincing management and labor that safety and health are in their best interest. Management and labor are responsible for achieving and maintaining a safe and healthful work environment by encouraging safe work habits and proper reactions to unsafe conditions that eventually will become automatic.

I. Purpose

This handbook sets forth procedures for MSHA personnel to follow when conducting inspections and investigations of underground and surface coal mines. The instructions in this handbook are primarily procedural and administrative. This handbook supersedes previously issued procedural and administrative instructions on this subject.

II. Authority

Section 103(a) of the Mine Act provides authorized representatives (ARs) of the Secretary of Labor with the authority to conduct inspections and investigations of coal and other mines. Additionally, Section 103(a) provides ARs with the right of entry to, upon, and through any coal or other mine. Only persons who have been authorized by the Secretary and have had proper credentials issued to them shall conduct inspections and investigations under the Mine Act. When requested, ARs shall present their credentials to interested parties before conducting an inspection or investigation.

III. Responsibility

The Administrator for Coal Mine Safety and Health (CM&SH) has the primary responsibility for enforcing the Act and implementing the regulations as they relate to coal mines. This responsibility ultimately rests with the ARs (coal mine inspectors and specialists and their supervisors). The ARs are responsible for conducting thorough inspections and/or investigations.

Inspectors should discuss safety and health practices with the miners during every inspection. The participation of miners is essential to achieving an effective safety and health program.

III. Health and Safety Rules

A thorough knowledge of Title 30, Code of Federal Regulations, and the Mine Act is required. MSHA employees shall comply with state and company rules and regulations except when they conflict with Federal standards or interfere with the performance of their duties.

IV. Labor/Management Relations

MSHA employees shall remain impartial toward both labor and management. MSHA employees shall decline to give an opinion when a difference of opinion exists between labor and management regarding safety and health related issues that are not covered under the Mine Act, regulations, or standards.

When a picket line is present at a mine site, the inspector should discuss the purpose of his or her presence on mine property with the individuals on the picket line. If access to mine property is denied, the inspector shall give consideration to whether the mine is in production or just being maintained and the type of inspection activity to be performed [AAA, 103(i), 103(g)] in determining whether crossing the picket line is appropriate. Under no circumstances should the inspector put himself or herself or anyone else in danger while crossing a picket line. The inspector should contact his or her supervisor when necessary in making this determination. The supervisor may consider contacting the labor representatives to attempt to resolve the problem, accompanying the inspector, or sending an additional inspector if the situation warrants.[1]

Note: Sections on Ethics/Standards of Conduct and Use of Government Vehicles have been deleted from this chapter because they are already addressed by Agency policy and regulations.

Chapter 2 - Inspection and Technical Investigation Procedures

Inspections and technical investigations are similar. The primary difference is that most investigations are prearranged and address a specific subject or area at a mine. This chapter covers the general procedures that must be addressed by Authorized Representatives during any inspection or investigation.

I. Preparation

A. Review Uniform Mine File. Prior to an inspection or investigation of a coal mine, the inspector or specialist will review the Uniform Mine File (UMF) and sign the inspector's certification sheet (see Uniform Mine File Procedures Handbook for specific instructions). This review must include all Petitions for Modification granted for the mine[2]. A specialist who is not located at the field office where the UMF is filed may call the field office supervisor, or the inspector regularly assigned to the mine to be visited, to obtain the latest information from the UMF on conditions at the mine. The specialist should record information obtained from the UMF by telephone in the notebook for use during the inspection or investigation. The person providing the review information from the UMF should document this review on the certification sheet.

B. Review Injury Incidence and Severity Rates and Employment Reports. Review the injury incidence and severity rates of a mine before conducting an inspection. During each regular inspection, review copies of Part 50 MSHA Forms 7000-1 and 7000-2 kept at the mine.

C. Equipment and Supplies. Each inspector must be knowledgeable in the use of and have access to each piece of equipment and supplies needed to conduct a complete inspection or investigation[3]:

THE FOLLOWING EQUIPMENT AND SUPPLIES SHOULD BE PROVIDED TO EACH UNDERGROUND INSPECTOR AND EACH SURFACE INSPECTOR AS NEEDED

Credentials and identification check

Permissible electric cap lamp

Lamp belt with attached identification check

Protective hat, safety shoes or boots, and knee pads

Coveralls

Eye protection

Ear plugs or ear muffs (whichever provides the needed protection)

Respirator with appropriate cartridge

Permissible methane detector and extendible probes as needed

Permissible oxygen detector (after November 15, 1995)

Anemometer, a watch with a second hand or a stop watch, measuring tape, measuring rule, smoke tubes, and aspirator bulb

Air sample bottles

Roof testing device

Self-contained self-rescuer (SCSR)

Light meter

Portable water pressure gauge (to measure spray nozzle pressure)

Carrying case for equipment

Copies of the Act, 30 CFR, Inspection Procedures Handbooks, and Program Policy Manual

Citation and order forms

Mine Atmosphere Sample Record (MSHA Form 2000-43)

Appropriate notepad(s), pencil, ballpoint pen

Dust collecting equipment - incombustible (Bituminous Coal and Lignite Mines)

Mine dust sample containers (Bituminous Coal and Lignite Mines)

Rock dust sample cards (Bituminous Coal and Lignite Mines)

Feeler gauges (appropriate sizes)

THE FOLLOWING EQUIPMENT SHOULD BE AVAILABLE TO EACH INSPECTOR AS NEEDED IN EACH FIELD OFFICE

Permissible flame safety lamp, magnet and other servicing equipment (supplemental equipment after November 15, 1995)

Approved respirable dust sampling pumps, battery chargers, volt meter, sampling head assemblies, and filter cassettes

Forms for new mines, reopened mines, change of ownership, abandonment, and other required inspection forms (i.e. 2000-86)

Belt speed indicator (rpm indicator) (as needed)

Permissible carbon monoxide detector

Megnehelic gauge, and pitot tube

Methane monitor test kit with adapters for types of monitors

Noise Dosimeters and calibrator

Fast-flow pump calibrators (electronic bubble meter)

Mechanical in-line flow meter

Roof bolt torque wrench

Roof bolt finishing bit gauge

High speed anemometer

II. Pre-inspection/Investigation Conference

Upon arrival on the property, MSHA personnel shall notify representatives of both the operator and the miners that an inspection or investigation will be conducted. Both parties shall be informed of the general purpose of the inspection or investigation so they can determine if specialist or technical expertise will be needed from them.

III. Inspections/Investigations

A. Conducting Inspections/Investigations. Depending on the purpose, inspection and investigation activities may require the inspector to be at the mine in advance of starting time. Inspectors and specialists should allow time for pre-inspection contacts, a preliminary review of the record books, and an overview of the mine map to determine which area of the mine to begin the inspection or investigation. MSHA personnel should proceed to the area selected for inspection as quickly as possible after arriving at the mine site. When inspection personnel travel to a working section while conducting inspections or investigations, they should check all the working places for imminent dangers as soon as practical after arrival on the section and before examining equipment or observing any cycle of operation. A complete AAA inspection covers all shifts ~~and at least one shift shall be devoted to accompanying the mine examiner~~[27].

B. Supervisory Coal Mine Inspectors Accompanying an Inspector. When a supervisor accompanies an inspector, investigator, or specialist, the supervisor's name shall not be cited as one of the inspection officials or authors of the resulting report.

C. Inspectors-in-Training. When an inspector-in-training accompanies an AR to learn proper inspection procedures, include only the name of the AR in the report.

D. MSHA Personnel - Former Mine Employee. All personnel must have at least 2 years current employment with MSHA prior to conducting assignments at mines where they were formerly employed.

E. Attempts to Delay Inspection Personnel. If an operator attempts to delay an inspection, take action under Section 108 of the Mine Act. (Refer to Section III.J of this Chapter, Section 108 - Injunctive Relief

Procedures). An example of this type action is when mine management attempts to delay an inspector from going underground so that the shift working underground can correct violations of mandatory standards. Even if mine management has, at the time of arrival, started to take action to correct the condition(s) or practice(s), cite the violation(s). (Refer to Chapter III of the Special Investigations Procedures Handbook.)

F. Right of Entry and/or Refusal to Comply with Orders. Any authorized representative of the Secretary shall have the right of entry to, upon, or through any mine property for the purpose of making any inspection or investigation under the provisions of the Act.

In the event an inspector is refused entry to a mine, or is threatened or harassed while making an inspection, the inspector should promptly notify the immediate supervisor and give the supervisor all the available information.

The inspector must be familiar with the terms, definitions and actions to be taken, as described below[5].

Denials of entry can be either: (a) direct denials involving confrontation; or (b) indirect denials involving interference, delay and/or harassment.

Upon being denied right of entry, the inspector should first attempt to determine the reason for the denial. Was it direct or indirect? Specific actions must be taken for different types of denials:

1. Direct Denials. Direct denials are those in which an operator or the operator's agent informs an inspector that an inspection of the mine will not be permitted.

   The following situations are the most common reasons for direct denial: (1) the operator refuses to permit inspection based on the belief either that MSHA does not have the right or authority to inspect because the mine is not subject to the Act, or that a search warrant is required; or (2) the operator chooses to be selective by denying entry to a specific inspector.

The latter is to be considered a denial of entry to MSHA as a whole.

a. Denials Not Involving MSHA's Statutory Authority. When the operator informs an inspector that an inspection of the mine will not be permitted, and no challenge is made concerning MSHA jurisdiction, the following actions should be taken if the inspector can safely do so[5]:

1) The inspector should explain to the operator the mandatory inspection requirements in Section 103(a) of the Act and that a citation will be issued and a penalty assessed for the denial of entry.

2) If, after explaining MSHA's position to the operator, the inspector is still denied entry to the mine, the inspector shall issue a 104(a) citation citing a violation of Section 103(a) and establishing a reasonable time for abatement (Refer to Chapter 8, Section XIV, Example 1, of this handbook.) Suggested abatement time is 30 minutes unless circumstances necessitate other limits. If it is believed that physical harm would occur if a citation were served, leave the mine property and promptly contact the immediate supervisor. If a decision is made that the citation cannot be served in person, send it to the operator by certified mail, return receipt requested. Send the citation the same day as the denial, if possible.

3) If, upon conclusion of the abatement period, the operator withdraws the denial and permits the inspection, the inspector should terminate the citation. However, if the operator still denies entry to the mine, the inspector should issue an order of withdrawal (Refer to Chapter 8, Section XIV, Example 2, of this handbook) and notify the immediate

MSHA supervisor so that an injunctive action may be considered.

b. Denials Involving MSHA's Statutory Authority. When the operator refuses to permit an inspection upon the belief that MSHA does not have the right or authority to inspect the mine, the inspector should explain to the operator the mandatory inspection requirements under Section 103(a) of the Act, and that there will be a citation and penalty assessed for the denial of entry. The inspector should first carefully note the operator's response as to why the operator believes that the mine is not subject to the Act, and then proceed as listed in a. above, "Denials Not Involving MSHA's Statutory Authority[5]."

2. Indirect Denials. Indirect denials are those in which an operator or its agent does not directly refuse right of entry, but takes roundabout action to prevent inspection of the mine by interference, delays, or harassment. There must be a clear indication of intent and proof of indirectly denying entry. For example, access to the mine is blocked by a locked gate or other means of blockage. However, a locked gate or other means of blockage, in and of itself, does not necessarily constitute a denial of entry. Mine management may have only closed the mine for the day and blocked the mine access road to prevent vandalism. However, when a locked gate is accompanied by continued production and deliberate avoidance of communication with the inspector, the mine operator is denying MSHA right of entry to the mine property. Other examples are listed below. The list is not meant to be all-inclusive, and reference is made only to some of the situations which may constitute an indirect denial.

a. Refusal to furnish available transportation on mine property when it is difficult or impossible to inspect on foot;

b. Refusal to provide information regarding, or to accompany inspectors into, areas

considered unsafe to travel without specific knowledge of the subject mine;

c. Withdrawing mine personnel when the inspector arrives;

d. Removing power from the mine or the mine ventilation system when an inspector arrives (before or after production);

e. Denying access to equipment or the immediate work area;

f. Deliberately withholding vital information (ownership, responsible person, name of operator, disposition of product, ownership of equipment, etc.); and

g. Denying entry for failure to have a search warrant. The Supreme Court, in the 1981 case of Donovan v. Dewey and Waukesha Lime and Stone Company, upheld the authority of MSHA to conduct warrantless inspections.

When the mine has an I.D. number and the operator is known and present and does not verbally refuse right of entry, but takes indirect action to prevent inspection of the mine, the inspector should explain the particular actions which are considered to be a denial of entry, and then should proceed in accordance with the above instructions pertaining to Section 103(a) of the Act, Denials of Entry.

When a mine has an I.D. number and the operator is known but not present, and access to the mine is indirectly denied, the inspector should return to the office, notify his/her immediate supervisor, issue a 104(a) citation for a violation of Section 103(a), and mail the citation to the operator by certified mail, return receipt requested. The inspector shall return to the mine site at the conclusion of the abatement period and terminate the citation if an inspection is allowed. If entry is still denied, the inspector shall issue a 104(b) order of withdrawal and notify the MSHA supervisor of the action taken so that injunctive action may be considered.

When a mine does not have an I.D. number and the operator is unknown, and access to the mine is indirectly denied, the inspector should return to the office, notify the supervisor, and assist in identifying the mine property and property owner in order to determine jurisdiction. When the property is identified and jurisdiction has been established, the inspector and the supervisor should meet with the operator or agent and request access.

The operator or the agent must be informed that he/she has been identified as the operator, owner, lessee, etc., and that MSHA has evidence that the operation is under the jurisdiction of the Mine Act. The operator must be given a description of the circumstances which prevented access. The inspector should then explain the statutory right of entry and again attempt to gain entry to the mine property. Should a denial of entry again occur, the inspector and the supervisor should take appropriate action depending upon the nature of the denial, as previously mentioned[5].

G. Assault or Harassment of Inspectors. Under Section 111 of Title 18 of the United States Code, it is a Federal crime to assault, intimidate, or impede MSHA employees who are performing investigative, inspection, or law enforcement functions. Any person(s) committing such an offense is subject to investigation and arrest by the FBI, prosecution by the U.S. Attorney in Federal courts, and to a fine and imprisonment.

MSHA policy requires that an inspector leave the scene where an apparent violation of Section 111 is about to occur. To avoid a confrontation, inform the person(s) involved that an attack on an MSHA inspector is a Federal crime, and that they may be subject to investigation and arrest by the FBI. If you believe that you may be subject to physical harm or assault, leave the property immediately and promptly notify your supervisor.

In the event of an assault, intimidation, harassment, or the impeding of an inspection, the supervisor is responsible for recording all the facts and contacting the District Manager or Subdistrict/Assistant District Manager. The District Manager or Subdistrict/Assistant District Manager will notify the Technical Compliance

and Investigation Division and obtain further instructions. The use of Special Investigations Group personnel should be considered in the early stages of this process[6]. Providing the inspector has not been assaulted and if the inspection is not the result of an imminent danger complaint, the inspector and his/her supervisor should again attempt to conduct an inspection. Normally, no more than two inspection personnel are sent to the mine property at this time.

H. Operations that Fall Within the Scope of the Mine Act.

1. Section 3(h)(1) defines the term "mine" and extends coverage of the Mine Act beyond mining to the next sequential stage that of related milling operations. Facilities covered by the Mine Act include private or custom preparation plants (mills) and other related surface facilities not directly associated with a single mine or groups of mines.

   Mine development, rehabilitation activities, and exploration work at an established mine are within the scope of the Mine Act. All types of mining, including placer, dredge, and hydraulic operations, shall be inspected. This includes all government-owned or operated mines and mills whether Federal, State, county, or other. All operations located in the 50 States and the District of Columbia, as well as in any territory or protectorate of the United States, shall be inspected.

2. The Act expands the definition of "operator" to include independent contractors. Regulations governing independent contractors can be found in 30 CFR Part 45. The MSHA Program Policy Manual, Volume III, Part 45, contains a thorough discussion of independent contractors.

I. Idle Mines. Inspect mines that are idle for reasons other than a labor dispute. Some mines may cease production when an inspector arrives to avoid inspection. Normally, an idle mine is not inspected except to make rock dust surveys, travel escapeways and air courses, or similar activities that are the same whether or not the mine is working. Therefore, MSHA has three alternatives:

1. The inspector shall enter the mine and conduct a limited inspection where conditions are the same as on working days;

2. The inspector shall appear at the mine on several consecutive days, resulting in the operator submitting to an inspection or remaining idle; or

3. The inspector should report the event to his or her supervisor for assistance in developing an inspection plan.

J. Section 108 - Injunctive Relief Procedures. An injunction is an order from a United States District Court demanding that a person do something (e.g., allow entry) or refrain from doing something (e.g., working against an order of withdrawal). The failure or refusal to comply with any type of injunction is punishable by a contempt of court charge. There are two preliminary steps in an injunctive action, a temporary restraining order (or preliminary injunction) and a permanent injunction.

Section 108 permits the Secretary to institute a civil action for an injunction, restraining order, or other appropriate relief when the operator or his or her representative:

1. violates, fails, or refuses to comply with any order or decision issued;

2. interferes with, hinders, harasses, or delays the authorized representative in performing any of his or her duties;

3. refuses to permit access to or inspection of the mine to the authorized representative or the designed representative of the miners; or

4. refuses to permit access to or copying of records requested for the purpose of carrying out provisions of the Mine Act.

When any of these circumstances arises and cannot be remedied by communication with the operator, discuss it with your supervisor immediately to determine if injunctive action is required.

The District Manager or Subdistrict/Assistant District Manager having jurisdiction over a particular mine

requests injunctive relief. Usually the inspector will be the person involved in the initial action leading to a request for an injunction.

If one of the above situations is encountered, record the names of as many persons involved as possible, the date and time of the denial or observance, and a detailed account of the circumstances. Then contact your supervisor as soon as possible.

Follow these procedures when initiating injunctive relief:

1. When an inspector reports a denial of entry or working in violation of an order of withdrawal, or a violation of any of the four items listed previously, the inspection supervisor should immediately contact the Subdistrict/Assistant District Manager, assist in preparing the inspector's summary memorandum, and if so advised, assist in preparing the inspector's affidavit.

2. The Subdistrict/Assistant District Manager (or designee of the District Manager) shall be the person primarily responsible for requesting and coordinating injunctive actions in the District Office. When this manager determines that an injunctive relief should be requested, he or she should:

    a. review the decision with the District Manager and, if the District Manager concurs, obtain a case number and fax the inspector's memorandum to the Technical Compliance and Investigation Division;

    b. contact the Regional Solicitor by phone and discuss the case for any special instructions;

    c. have the inspector prepare an affidavit;

    d. establish a case file for the material, labeling it with the case number;

    e. collect the necessary information and assemble the case materials in the case file for transmission (affidavit, citations, orders, jurisdictional information, etc.); and

f. transmit copies of the case file to the appropriate Regional Solicitor and to the Technical Compliance and Investigation Division.

3. When a Subdistrict/Assistant District Manager determines that an imminent danger order is not being complied with, he or she should:

   a. consult with the District Manager and, if the District Manager concurs, obtain a case number, and advise the Technical Compliance and Investigation Division by telephone; and

   b. contact the appropriate Regional Solicitor by telephone and describe the order, danger, and regulation violated, if appropriate, to an attorney, as well as the circumstances of noncompliance, and request assistance and advice.

4. When the injunction is received, the inspection supervisor shall accompany the inspector to the mine. The supervisor shall serve a copy of the injunction to the operator and accompany the inspector on the first day of the inspection. Upon return to the office, the supervisor shall complete a certificate of service and forward it to the Subdistrict/Assistant District Manager for inclusion in the case file. When the inspection is completed, a copy of the inspection report shall be forwarded to the Subdistrict/Assistant District Manager for inclusion in the case file.

5. When the Subdistrict/Assistant District Manager receives the inspection report and certificate of service, copies should be transmitted to the Technical Compliance and Investigation Division, indicating that the case is closed.

6. If the operator, after receiving the injunction, does not comply with the court's order, the supervisor and inspector shall record the incident in their notes, return to the office, and contact the Subdistrict/Assistant District Manager who shall inform the District Manager.

7. The District Manager shall:

a. immediately contact the attorney handling the case for advice and assistance; and

b. notify the Technical Compliance and Investigation Division by telephone of the noncompliance and of the solicitor's instructions.

K. Danger Boards/Hazardous Areas. An inspector has the right of entry into a "posted" or "dangered off" area in the performance of his or her duties, but should do so with caution.

Do not travel anywhere in a mine where the oxygen content is below the acceptable air quality standards. However, in case of an emergency, properly protect yourself with a self-contained self-rescuer.

L. Deteriorated Explosives. Consider deteriorated explosives as nonpermissible, as they can become quite sensitive and detonate very easily if mishandled. If they are used, a misfire, hangfire, or fire can occur. Therefore, special precautions must be taken in their removal and disposal. They should be transported in limited quantities and in proper containers, preferably with a sawdust bed for insulation and absorption qualities. Carefully consider and evaluate the following factors when dealing with deteriorated explosives: amount of explosives, location, condition, personnel, and transportation.

As a precaution to guard against the use of deteriorated explosives, check with mine operators concerning explosive materials they have purchased. If there is any indication that explosives recently purchased were in a deteriorated condition, obtain the name of the operator's explosives supplier. Forward this information to the nearest Bureau of Alcohol, Tobacco and Firearms (ATF) office. In addition, determine that any deteriorated or damaged explosives encountered are being handled and disposed of properly.

Deteriorated nitroglycerin-sensitized permissible explosives can normally have the following defects:

1. Absorption of Moisture. This is indicated by the wet or pasty condition of the powder, usually at the machine-pack end. This condition is caused by the hygroscopic (readily absorbing and retaining of moisture) effect of the ammonium nitrate, a high percentage ingredient of the explosive.

2. Leakage of Nitroglycerin. Leakage is shown by the discoloration of the shell paper or by the presence of drops of nitroglycerin on the case liner and possible discoloration of the box. Leakage may be due to old age or to absorption of moisture that forces out the nitroglycerin.

The operator should consult the manufacturer if nitroglycerin from deteriorated explosives has leaked onto the floor of the magazine. The floor should be desensitized by washing thoroughly with an agent approved by the manufacturer for that purpose.

If experienced personnel are not available for removal or disposal, or if there is any question about the safety of the undertaking, the handling and destruction of the explosives should not be attempted until a representative of the explosive's manufacturer has been consulted. (Refer to Chapter 7 of this handbook on Interagency Agreements.)

M. Measurements. Use a standard measuring tape or rule to take measurements that are to be used to substantiate violations or investigative findings, except in large areas that cannot be readily measured. This does not prohibit scaling distances on an accurate map when applicable.

N. Mines with Section 101(c) Petitions. Operators must comply with all mandatory safety standards, even though an operator may file a request for modification under 30 CFR 44.10. Issue a citation when a mine operator has failed to comply with any safety standard, even though a petition for modification has been filed and a decision on the petition is pending before the Administrator.

There are, however, circumstances under which the period of time for abatement may be extended until a decision has been made. For example, when it is alleged in good faith that application of such standard will result in a reduction of safety to the miners and, if applicable, stipulations in the petition are complied with while the petition is being processed. An example is where the safety standard for which modification is sought was filed under 30 CFR 75.364, alleging that certain return aircourses in the mine are unsafe for travel due to adverse roof conditions[7].

O. Petitions for Modification - Posting of Decisions and Orders on the Mine Bulletin Board. Section 44.5(b) of 30 CFR requires that either a copy of every final action granting a petition for modification or a summary of the contents of the petition be posted on the bulletin board of the mine affected by the petition. The mine operator posts and maintains the information for as long as the modification remains in effect. If a summary of the final action is posted on the mine bulletin board, a copy of the full decision shall be kept at the affected mine office and made available to the miners.

When a summary of the modification is used, the summary should contain at least the docket number, the 30 CFR section modified, the effective date, and the subject of the section modified.

EXAMPLE: Petition for Modification Docket Number M-89-001-C, 75.1700, Effective - April 1, 1989, Mining through a plugged gas well, 2nd South Section.

P. Approved Books and Records. Any form of books or records maintained by the mine operator for the purpose of recording the information required by 30 CFR 77 will be acceptable until such time as approved books and records are available.

Q. Interconnected Mines. Where adjacent mines are connected underground and are considered separate mines, issue an order to each mine if any imminent dangers are found in a mine that may affect the safety of the miners in the connected mine. Implement this procedure regardless of whether these mines are controlled by the same or different operators.

R. Inspection of Mines on Idle Shifts. Limit inspection of mines or other facilities on idle shifts to places where conditions are practically the same as they would be on working shifts. Inspect conditions in escapeways, travelways, and explosives and material storage areas that would not be significantly different on idle shifts. At underground mines, conduct shaft inspections during this time. Do not inspect other areas of the operation where conditions, procedures, or methods of operation could affect health and safety during these down periods. If the mine to be inspected is found to be idle or becomes idle during the inspection, consult with your supervisor.

S. Independent Contractors. During the course of a complete inspection, inspectors shall, to the extent practical, make a special effort to seek out and inspect the activities of independent contractors. While conducting the on-site inspection or investigation, the inspector should examine the production operator's independent contractor register and question the operator to determine contractor work schedules. When an inspector identifies the presence of a contractor, the inspector shall give consideration to the size of the contractor, the type of work being performed, and the length of time the contractor is projected to be present at the mine site, to determine what inspection activities are appropriate[8].

With the exception of "major construction site inspections," all efforts directed to independent contractors should be contained within the report for the ongoing inspection or investigation being conducted at the time. It is important to keep detailed notes recording the contractor's business name, number of employees present, and type of work being performed.

T. Violations. Issue a citation, order, or safeguard for each violation observed. When issuing citations and safeguards, establish a reasonable time to correct the violation. Ensure that factual evidence supports that a violation of a mandatory standard or regulation exists. (Refer to Chapter 5 of this Handbook for procedures for citing violations.)

U. Procedure for Disposition and Retention of Abandoned Mine Maps. Under 30 CFR 75.1204 [Mine Act Section 312(c)], when a mine is permanently abandoned, the operator is required to promptly notify the District Manager and to submit a certified map of the mine, revised and supplemented to the date of closure, within 60 days of abandonment. If the mine is temporarily closed for a period of more than 90 days, the operator is required to promptly notify the District Manager of such closure and to submit a complete map upon the expiration of the 90-day period from the date of closure.[31]

Upon receipt of these maps the district personnel will review the maps for compliance with the information required and acknowledge their receipt. If necessary, the district will require revisions by the mine operator.[31]

The mine maps, revised and supplemented to the date of closure, as required by 30 CFR 75.1204, should be sent by the district to the address given below to be microfilmed. If the operator fails to provide a mine abandonment map, the last certified mine map annotated by the district to indicate any additional advance of active mine workings will be used. Send the maps to the:[31]

Office of Surface Mining, USDI
Reclamation and Enforcement
Appalachian Regional Coordinating Center
Map Repository
Ten Park Center
Pittsburgh, PA 15220

The districts should request return of the mine closure maps, bearing the microfilm catalog numbers assigned by the Office of Surface Mining (OSM), and should file and maintain the maps for at least 3 years. Microfilming of these maps by OSM provides a permanent record of the abandoned mine and thereby assists MSHA in fulfilling its mission.[31]

State and federal mining laws have historically recognized the need for systematic survey and mapping of mine workings. The safety of adjacent mine workings, the interests of surface land users and the interests of long term land use and public safety necessitates the maintenance of up-to-date mine maps including maps of abandoned mines. The cataloging and preservation of mine abandonment maps by OSM on microfilm plays a significant role in fulfilling MSHA's mission to protect the safety and health of persons at mines and would also serve to protect persons on adjacent properties. Further, MSHA is charged by statute to cooperate with OSM to the greatest extent practicable [30 U.S.C. Section 1292(c)].[31]

MSHA's Program Policy Manual outlines the application and enforcement of mandatory requirements concerning the submittal of abandoned mine maps, but it does not include instructions for the uniform handling of abandoned mine maps once they are received by MSHA.[31]

IV. Post-Inspection/Investigation Conference

A. Notification. Ensure that mine management and the representative of the miners are aware that an informal conference will be conducted and when it is scheduled.

Develop a conference schedule to allow all parties to plan for and think about the content of the discussions.

B. Conference Procedures. Hold the closeout conference at the mine and, in most cases, immediately after the completion of the inspection/investigation. Document this conference in the inspection notes[9]. This will allow for the timely discussion of inspection findings and will not cause undue delays in the processing of cited violations. When an inspection is ongoing or takes longer than one week to complete, an interim conference is necessary so that the findings are processed promptly. To ensure the timely discussion of issues, hold an inspection closeout conference on cited violations at least weekly during all inspections that take longer than one week to complete.

At complex multi-shift operations, hold short interim conferences at the end of each inspection day, if agreeable to the parties involved.

During ongoing inspections, use the last closeout conference of the week to give all involved parties the opportunity to discuss the weekly findings. Postpone and reschedule the weekly closeout conference if a different time is more convenient to the parties involved.

At the conferences, discuss all actions taken that will be included in your report.

C. Final Conference. Hold a post-inspection conference at the end of each inspection or investigation. This conference should always include an overview of the entire inspection or investigation with the conditions and practices observed and the violations cited. Plan carefully for this conference, as this will be the opportunity to end the inspection or investigation positively, further reinforcing safety and health issues and programs at the mine.

V. Inspection/Investigation Reports

Refer to Chapter 8 of this handbook for explanations and samples of forms required to be completed after an inspection or investigation.

VI. Litigation Proceedings

A. Appearance as a Witness in Litigation Involving MSHA.

1. MSHA personnel who have been asked to participate in or expect to be called as a witness in litigation to which MSHA is a party should:

   a. thoroughly review all citations, orders, documents, investigative reports, and notes involved in the case, and provide legible copies to the attorney handling the litigation;

   b. inform supervisory personnel of the litigation and their involvement therein;

   c. make themselves available to the attorney prior to trial to discuss the circumstances of the case and details of testimony;

   d. make necessary arrangements to attend the hearing and meet with the attorney prior to the hearing; and

   e. immediately inform the attorney handling the case of any changes in circumstances, contacts, with or requests from the opposing party, or subpoenas requiring attendance at any meetings or proceedings.

2. During litigation, MSHA personnel called as witnesses should:

   a. dress and conduct themselves in a neat and professional manner;

   b. be cooperative, respectful, and attentive to the judge, participating attorneys, and other interested parties;

   c. answer only questions asked, without volunteering additional information and, if the witness does not know the answer, this fact should be honestly stated;

   d. answer questions directly and in the simplest manner possible and where a yes or no answer will not suffice, offer necessary explanations; and

e. attempt to correct misstatements in testimony or clarify a point that has clearly been misunderstood.

B. Appearance as a Witness in Private Litigation. MSHA follows the guidelines for employee testimony found in 29 CFR 2.20. Specifically, this policy relates to:

1. Subpoenas served on MSHA employees requiring them to either (1) testify or produce documents or other materials, or (2) appear or answer questions in an administrative or judicial proceedings, including labor arbitrations and actions brought by individuals under Section 105(c)(3) of the Mine Act, to which MSHA is not a party.

2. Written or oral requests to interview MSHA employees or to produce official MSHA documents or other material that may be used in future administrative or judicial proceedings, including labor arbitrations and actions brought by individuals under Section 105(c)(3) of the Mine Act, to which MSHA is not a party.

When requests outlined above are received by an MSHA employee, the employee's supervisor should be informed immediately. Field supervisors shall promptly refer the matter to the appropriate DOL regional solicitor's office. No further action shall be taken until authorized by the Office of the Solicitor. Although initially the solicitor's decision may be given orally, a copy of the decision will be formally provided in writing. A copy of the request, along with all available pertinent information, should be forwarded to the regional solicitor upon request.

These procedures are **not** applicable when the matter is initiated by MSHA or at the request of the U.S. Attorney's office in an MSHA-related case. In these instances, the requests for an employee's presence or assistance must be made through the District Manager's office.

Chapter 3 - Types of Inspections and Investigations

Coal Mine Safety and Health Authorized Representatives conduct many types of inspections and investigations, identified according to the general purpose of the activity. This chapter discusses the types of activities and the procedures for conducting those activities involving special circumstances.

I. Authorized Activity Codes

Authorized activities relate to inspections, investigations, and enforcement activities. The authorized activity code is a 3-digit alphabetic code which has been categorized accordingly. (Refer to Chapter 8, Section I, of this handbook for a list of all activity codes.)

1. Codes AAA-AGC -- Mandatory Inspection and Investigations (Enforcement activities on the mine property)

2. Codes BAA-BBF - Policy Inspections and Investigations (Enforcement activities on the mine property)

3. Codes CAA-CFC - Auxiliary Inspections and Investigations (Enforcement activities on the mine property)

4. Codes DAA-DGC -- Enforcement activities not on mine property

5. Codes EAB-EZA -- Education and Training (Activities common to all CMS&H organizations)

6. Codes FAA-FZA -- Miscellaneous (Activities common to all CMS&H organizations)

7. Codes GAA-GKA -- Absent from Duty (Activities common to all CMS&H organizations)

8. Code TEA -- Technical Compliance and Investigation Activity

II. Inspections

A. New Underground Mines. Before mining begins in a coalbed, the mine operator shall be in compliance with all provisions of 30 CFR 75.1721. On the first visit, the inspector shall make certain that the mine operator is aware of the Mine Act and the applicable implementing regulations of 30 CFR.

B. New Surface Mines, Coal Facilities, and Other Sites. Each new surface mine, coal preparation facility, or other surface construction site to be used in conjunction with an underground or surface mine shall be inspected promptly after operations begin. Prior to beginning operations, the mine operator should have processed all the plans necessary to meet the requirements of 30 CFR.

On the initial inspection, the inspector shall make certain that the mine operator is fully informed and aware of the applicable plans, programs, and procedures in this handbook, and of the Mine Act and implementing regulations of 30 CFR.

C. New Shaft or Slope Mines. When inspecting shaft and slope sinking operations, Part 77 will apply for inspection purposes until all work regarding the project outlined in the approved shaft and/or slope sinking plan is completed. The shaft sinking plan required under Part 77 should indicate when the applicable provisions of Part 75 shall be met by the responsible organization that commences the mining cycle.

D. Abandoned or Inactive Mines Before Mining Operations Commence. When a mine has been abandoned or declared inactive by the operator, the inspector shall conduct a safety and health reopening inspection of the entire mine in accordance with 30 CFR 75.373 before mining operations are resumed. The intent is to ensure the safety of miners at mines that have not been routinely examined during periods of inactivity. An exception is where there has only been a change of mine name or ownership and the mine has not actually been physically closed down or abandoned.

At underground mines, a safety and health inspection of the entire mine shall be conducted as soon as practical after notification from the operator that the mine is reopened. Only rehabilitation work may be performed on the surface areas of underground mines by an operator prior to notifying MSHA. Surface rehabilitation work may occur prior to or during a reopening inspection, but production of coal shall not begin until the reopening inspection has been completed. This enables MSHA inspectors to accurately assess the proposed

mining systems and to identify any potential problems that may present hazards to miners before mining operations commence. If the inspection can be performed safely inby the point where a new section is to be started, the area may be released. Areas that cannot be inspected will be sealed or ventilated in a manner that will not affect the working section or sections.[10]

The inspector shall determine whether the provisions of 30 CFR 75.1721 or 77.1712 have been complied with in full. Any citation or order of withdrawal issued during the course of a reopening inspection should reflect that this inspection was made prior to reopening the mine. Any violations caused by or attributed to the negligence of the current operator should be issued on a code other than ACA.[10]

The inspector shall use MSHA Form 2000-22, Mine Activity Data, as a cover sheet for inspection reports, and identify as Coal Mine "Reopening" Inspection Report (refer to Chapter 8, Section III). The inspector statement accompanying any citation or order of withdrawal issued during the course of a reopening inspection should reflect that the inspection was made before reopening the mine. At underground mines, a safety and health inspection of the entire mine shall be started within 30 days after the mine begins production.

E. Regular Inspections. A regular or complete inspection is an inspection of the entire mine. This inspection is to determine if an imminent danger exists and if there is compliance with mandatory health and safety standards, with any citation, order, or decision issued, and with other requirements of the Act.

1. Underground Mines. Generally, the underground portion of a mine shall be inspected before the surface facilities, and the working sections should be inspected first. However, this does not preclude inspecting other areas of the mine, either on the surface or underground, where a serious problem or condition needs immediate attention, or walking the airways or beltlines to the section(s), or collecting air samples at main fans. During the inspection, the inspector shall

thoroughly examine all the record books required by the Act and regulations, selectively travel at least once on each working shift with the mine examiner, and observe at least one mantrip into and out of the mine.[11]

a. Before going underground, the inspector shall:

1) examine at least the pre-shift and on-shift record books, paying particular attention to record book entries of conditions of an area of the mine that may identify a serious or potentially hazardous problem; the inspector should proceed to this area immediately;[11]

2) thoroughly study the mine map with special attention given to mining in proximity to:

a) worked-out areas,

b) oil and gas wells,

c) fuel transmission lines,

d) surface water that could present an underground flood hazard,

e) mines, including surface mines, located above and below active workings, and

f) any danger that surface mining may present to underground miners.

b. The inspector is required to inspect:

1) every working area in the mine, including all active haulageways;

2) entrances to abandoned workings;

3) accessible old workings, as safety permits;

4) air courses;

5) escapeways;

6) other places where miners work or travel;

7) all face equipment (diesel and electric), electric installations, and all mobile equipment as encountered;[12]

8) haulage facilities, including hoisting equipment;

9) first aid equipment;

10) ventilation facilities;

11) communication installations;

12) roof and rib conditions;

13) blasting practices;

14) fire hazards;

15) fire protection;

16) escapeways and escape facilities in shafts, such as hoists and elevators, observing at least one complete cycle of such hoisting equipment;

17) availability of potable water;

18) availability of sanitary facilities;

19) diesel fuel storage facilities; and

20) each designated SCSR storage location (cache) identified in the mine operator's approved SCSR storage plan.[35]

Inspectors are permitted to inspect steeply pitching intake slopes from slow moving slope cars provided the inspector can assume a safe position to observe conditions and the hoist operator can be signaled to stop or start the car at all times.[12]

When evaluating roof support spacing to determine compliance with an approved roof control plan, enforcement personnel should measure the lengthwise and crosswise distances between roof bolts. Inspection personnel should use reasonable judgment in determining from these measurements whether enforcement action is appropriate.[32]

The Agency recognizes that roof bolt spacing specified in a plan represents nominal dimensions and that reasonable tolerances for installation are permitted. To require roofbolter operators to reach inby and make exact measurements may introduce hazards that MSHA is trying to prevent. Therefore, an occasional inadvertent deviation that slightly increases the spacing of roof bolts but does not detrimentally affect support performance may not constitute a violation. Typically, roof bolt spacings that occasionally exceed the approved spacing pattern by less than 6 inches at intermittent locations and do not create a specific hazard should not be cited.[32]

c. To evaluate compliance with the regulations the inspector shall:

1) test for the presence of methane, oxygen deficiency, carbon monoxide, and nitrogen dioxide in mines using diesel equipment;

2) collect samples of mine air for analysis to determine the quality of the air with respect to noxious or explosive gases and oxygen content;

3) collect samples of dust for analysis to determine incombustible content; and

4) conduct noise surveys.

It should be noted that carbon dioxide (CO_2) and nitric oxide (NO) are also produced

during the combustion of diesel fuel. These gases may pose a hazard to anyone receiving short-term exposure to harmful quantities. See chart below for additional information.

Mine Gas Exposure Levels

Gas	TLV	Excursion Limit	Explosive Range
Oxygen (O_2)	19.5% minimum	None	None
Carbon Dioxide (CO_2)	0.5%	0.5%-statutory limit *	None
Carbon Monoxide (CO)	50 ppm	400 ppm for 15 minutes	12.5% - 74.2%
Nitric Oxide (NO)	25 ppm	37.5 ppm for 15 minutes	None
Nitrogen Dioxide (NO_2)	5 ppm-ceiling limit	5 ppm-ceiling limit	None
Methane (CH_4)	None	None	5% - 15%

* Miners who work or travel in bleeders or worked out areas may be exposed to up to 3.0% carbon dioxide for a time period not to exceed 15 minutes.

Oxygen and carbon dioxide limits from '75.321. Other limits from ACGIH TLV=s, 1972 ('75.322).

d. MSHA personnel will not search anyone for matches, lighters, or smoking materials. However, the inspector should:

1) observe searches for smoking materials to ensure that the searches are done as prescribed in the mine's search program;[13]

2) determine whether an adequate search program exists by reviewing the records;

3) interview a number of miners concerning the search program; and

4) be alert for evidence of smoking underground.[13]

e. After determining the section to be inspected, the inspector should proceed underground as quickly as possible to the working section or other area of the mine identified as a possible problem area. On every section examined, checks shall be made for imminent dangers before examining equipment or observing any cycle of operation such as cutting, loading, and bolting. While observing any cycle of operation, the inspector should take advantage of this opportunity to speak with miners concerning the safety and health aspects of their jobs.

f. In conjunction with the routine safety work, the inspector shall determine:

1) if the operator is in compliance with the dust control parameters of the approved ventilation plan (inadequacies of the dust control parameters should be documented on MSHA Form 2000-204);

2) if the operator is in compliance with existing hearing conservation plans;

3) if the operator's sampling procedures are in accordance with Part 70; and

4) if the operator is submitting accurate information relevant to respirable dust and noise.

g. The inspector shall verify early in the sampling shift, through visual observation and physical measurements, all the dust control parameters stipulated in the approved ventilation plan. The inspector shall record the findings on MSHA Form 2000-86 (Revised) and make a determination of whether or not the parameters appear to be adequately controlling the dust. The inspector shall also record on the data form all other dust controls that are in use at the time of

sampling but not included in the approved plan. This requires checking:[15]

1) operating pressure of the water sprays;

2) number and location of operating water sprays;

3) quantity and velocity of the ventilation air, including the mean entry air velocity on exhaust face ventilation systems;

4) line curtain or tubing distances from the working faces; and

5) any other parameters called for in the plan.

At the conclusion of the sampling shift, the inspector shall determine the amount of material in tons that was mined during the shift based on either the number of feet advanced, number of passes, or number of cars loaded; record this information on MSHA Form 2000-86 (Revised); and record the production reported by the section foreman.[15]

When there is doubt that the respirable dust control measures are adequate under the present mining conditions, even though the operator is complying with the approved ventilation plan, the inspector shall document the parameters measured and the reasons why the plan is deemed inadequate on MSHA Form 2000-86 (Revised). (Refer to Chapter 6, Coal Mine Health Inspection Procedures Handbook.) This form will be submitted to the inspector’s supervisor.

h. In areas where operations such as cutting or blasting are performed on every shift, these operations shall be inspected at the inspector's discretion. However, each operation must be inspected during the course of the inspection.[16] In those mines where

activities such as cutting, blasting, and loading may be conducted only once in several days, the inspector's supervisor shall determine when to observe such operations.

i. During every regular inspection at an underground coal mine, the inspector shall:

1) evaluate the operator's compliance with requirements for conducting preshift, onshift, and weekly examinations as follows:[17]

a) selectively travel (at least once) with the person(s) who performs the preshift, on-shift, and weekly examinations to evaluate the thoroughness and completeness of such examinations and to determine if the time expended by the examiner is commensurate with the areas required to be traveled and examined;

b) determine that all areas where persons work or travel are properly examined. Particular emphasis shall be placed on idle workings, worked out areas that are not sealed, and other such areas where persons may be required to work or travel;

c) look for initials, dates, and times of examinations in all areas where such information is required;

d) determine that the on-shift examinations in mines using diesel equipment include tests for CO and NO_2 as required by 70.1900;

e) determine that the person(s) performing the weekly examinations of the bleeder systems are traveling the bleeder entries in their entirety, or to key locations

approved in the ventilation plan to measure methane and oxygen concentrations and to determine whether the air is moving in the proper direction. The person(s) performing weekly examinations of the bleeder systems should be aware of the location of the measurements required under the ventilation plan, to ensure an effective evaluation of the system examined. Statements such as "All the areas required to be examined" are not acceptable. Air or methane measurements that remain constant may need to be investigated.[17]

f) consider the results of examinations where hazardous conditions were reported when determining the section or area of the mine to be inspected;[17] and

g) determine if the required exams are conducted by certified examiners.[17]

2) Evaluate the operator's examination records to:[17]

a) determine that results of examinations include the specific area or location examined and that the area is adequately described or identified. Statements such as "All the areas required to be examined" are not acceptable;

b) determine that examination results appear to be authentic. Air, methane, or CO and NO_2 measurements that remain constant may need to be investigated; and

c) compare air, methane, CO and NO_2 measurements taken by the inspector to those taken by the examiner at the same locations.

3) Evaluate haulage practices by observing the operation of mantrips, rail equipment, and rubber tired haulage equipment, including operation of diesel-powered equipment as required by 75.1916.[18]

4) Determine that mine maps are kept up-to-date as required and each working place is accurately shown.

5) Determine that all approved plans are being followed, are up-to-date, and are appropriate.

6) Evaluate operator compliance with the diesel standards at mines using diesel equipment including:

   (a) transportation, storage and dispensing of diesel fuel as required by 75.1902 - 75.1906;

   (b) minimum air quantities as required by 75.325(f) through (k) for diesel equipment or as specified in the approved ventilation plan;

   (c) requirements for machine features as specified by 75.1907, 75.1909 and 75.1910;

   (d) requirements for fire suppression systems as specified by 75.1911 and 75.1912;

   (e) mine operator weekly examinations and tests of diesel equipment using Approval & Certification Center approved checklists and manufacturer=s maintenance manuals as required by 75.1914(f).

(f) the mine operator has developed and implemented written standard operating procedures for weekly tests and evaluations as required by 75.1914(g); and

(g) the mine operator has a written training program to qualify persons to conduct weekly tests and examinations of diesel equipment as required by 75.1915 and has maintained records of training given under the program.

7) Evaluate the operator's compliance with approved self-rescuer condition-of-use requirements by:

(a) inspecting a representative number of <u>each type</u> of device in use at the mine, but not less than ten percent. A higher percentage should be inspected when devices are worn/carried or machine/ equipment mounted. These inspections should be conducted in accordance with the manufacturer's approved daily inspection procedures.

(b) reviewing the mine operator's records of self-rescuer tests. If possible, the inspector should also determine if the operator followed the manufacturer's approved test procedures.

8) Evaluate the adequacy of SCSR training by discussing donning procedures with a representative number of individual miners to ascertain their understanding of how to use the SCSR. If inspectors are made aware of any self-rescuer training deficiencies, they should report them to the District training liaison/specialist.[35]

2. Surface Mines. Generally, the surface pit and related mining operations should be inspected before any coal preparation facilities. The inspector should observe work practices on all shifts to the extent necessary to determine the general attitude of supervisors and miners toward health and safety.

   a. The inspector is required to inspect:

      1) ground control plans;

      2) emergency medical assistance plans;

      3) record books required by the Mine Act and regulations;

      4) mine map for mining near active or abandoned underground workings, oil or gas wells, fuel transmission lines, and power transmission lines;

      5) highwalls;

      6) spoil banks;

      7) coal stockpiles;

      8) travelways for imminent dangers;

      9) each operating cycle of equipment; and

      10) mine operator's respirable dust and noise programs.

   b. The inspector shall investigate the possibility of surface water presenting underground flood hazards and any danger that stripping or augering may present to underground mining.

   c. The inspector is required to inspect every working area including:

      1) all active roadways

      2) escapeways

      3) places where miners work or travel

4) equipment

5) machinery

6) electric installations

7) haulage facilities

8) hoisting equipment

9) first aid equipment

10) communication installations

11) ground control conditions

12) drilling and blasting practices

13) fire hazards and fire control equipment

14) availability of potable water

15) availability of sanitary facilities

d. The inspector shall make the required tests for methane in structures, enclosures, or other facilities in which coal is handled or stored; test for methane and oxygen deficiency at the collars of auger holes; and evaluate the mine operator's respirable dust and noise program.

e. Highwall mining systems have the capability to penetrate to depths of 1000 feet or more. Unlike conventional surface auger mining methods that penetrate to only a fraction of this depth, highwall miners have a greater likelihood of encountering dangerous concentrations of methane. A November 12, 1991, explosion, involving a highwall mining machine at the Watson Bridge Mine in western Kentucky, resulted in fatal injuries to one miner and serious injuries to three others. Prior investigations into methane liberation with remote sampling at this operation indicated peak methane levels encountered to be 0.4 percent at the machine. This unfortunate occurrence serves to reinforce the need to address the explosion hazards associated with this method of mining, and indicates that continuous mining deep into highwalls, where the possibility of methane exists, without proper precautions significantly creates the possibility of imminent hazard.[28]

Enforcement personnel should evaluate whether methane is present in highwall mine openings and should determine whether an imminent danger exists and whether a Section 107(a) withdrawal order should be issued. Methane examinations should be made at all active openings using an extendable probe commonly used in underground mines during routine inspection activities at highwall mining operations.[28]

MSHA studies have determined that the danger can be eliminated by the following:[28]

1) A methane monitor can be installed on the mining machine to continuously monitor for methane during operation. At least one sensor should be located as close to the coal face as practicable. The alarm and display from the methane monitor should be located so that the alarm is audible and the display is visible to the machine operator. The alarm should be activated when 1 percent methane is detected and the machine deenergized at 2 percent.

2) A positive means of ventilation from the surface, to dilute and carry away methane being liberated during mining, can be provided to the machine while in operation.

3) All electric components used on machines operated in coalbeds where methane is present should be housed in explosion-proof enclosures or be intrinsically safe.

f. In areas where operations such as drilling, blasting, or stripping overburden are performed every shift, these operations shall be inspected at the inspector's discretion. However, each operation must be inspected during the course of the inspection.[19] At small mines where some operations, such as drilling or blasting, might be done only once in several days, the inspector's supervisor shall determine when such operations shall be observed.

3. Surface Facilities. Surface facilities and preparation plants shall be inspected for unsafe conditions, such as:

a. coal dust accumulations

b. lighting

c. structural integrity

d. methane accumulations

e. housekeeping

f. noise

g. handling and storage of hazardous materials and supplies

h. thermal dryers for coal and refuse

i. unique hazards posed by impoundments

F. Spot Inspections. Spot inspections can be conducted for a variety of purposes. They include but are not limited to determining the status of citations, notices to provide safeguards, or others issued during a previous inspection; collecting additional samples; and monitoring potentially hazardous conditions not covered by Section 103(i).

Section 103(i) of the Mine Act defines the conditions in mines under which spot inspections are to be conducted at various time intervals. Such a spot inspection shall not constitute a part of any other category of inspections and shall be directed specifically to the problems, hazards, or conditions under which the mine was classified as a Section 103(i) mine. However, this does not prevent another category of inspection or investigation from being conducted during the same visit to the mine. Section 103(i) spot inspections should be scheduled so they are conducted on different days of the week or randomly.

G. Hazardous Condition Complaint Inspections. Section 103(g) complaints, verbal hazardous condition complaints, and code-a-phone messages are a necessary part of the safety and health effort and must be addressed consistent with the seriousness of the complaint.

The Mine Act and 30 CFR Part 43 require MSHA to perform an immediate inspection of a mine whenever a miner or representative of the miners communicates in writing to MSHA his or her reasonable belief that a violation or imminent danger exists at a mine. A copy of the notice shall be given to the operator no later than at the

time of the inspection. However, when an imminent danger is alleged, the operator shall be informed immediately. The Act requires MSHA to initiate a separate investigation to determine whether the alleged violation or danger exists. If it is found that the violation or danger does not exist, or that a special investigation is not warranted, the miner or representative of the miners shall be notified in writing of MSHA's findings. A copy of the notice shall also be given to the operator.

The following procedure will be used by personnel for handling 103(g)(1) hazard complaints.[20]

1. All Section 103(g)(1) complaints will be transcribed and/or edited to clearly identify the reported hazard or complaint.

2. Handwritten complaints will be rewritten or typed with all identities omitted before being given to the mine operator.

3. Complaints will be reworded where speech patterns or language could identify the complainant.

4. Information items in the complaint that could identify the complainant will be deleted or reworded to protect his or her identity to the extent possible and still convey the basis of the complaint.

When a verbal complaint is received, the inspector shall evaluate and determine a course of action based on knowledge of the mine and content of the complaint. There are usually three choices:

1. an immediate inspection;

2. an inspection of the referenced area in the course of an inspection; or

3. a decision that the situation does not warrant further investigation.

The procedures of Part 43 do not apply to a verbal complaint. Additional information can be found in Volume III, Part 43, of the Program Policy Manual.

Phone messages received at district or field offices alleging hazardous conditions or unsafe practices are to be handled as outlined in the section on code-a-phone messages.

H. Code-A-Phone Messages. The following procedures are to be used by MSHA personnel for Code-a-Phone messages.

1. Each workday a Division of Safety designated staff member will check the message center for incoming messages. Each message will be numbered, logged into the program tracking system, and recorded on a master cassette. All messages will be reviewed by a Division of Safety staff member who is knowledgeable in mining matters to make a determination regarding the urgency of the message.

2. Code-a-Phone messages that mention the words "methane," "gas," or "percent of," or describe any situation that may be an imminent danger, such as adverse roof conditions, will be immediately brought to the attention of the Chief, Division of Safety, unless the condition complained of, even if it were found to exist, would clearly not constitute a violation or imminent danger. The appropriate District Manager or other district management official will be notified by telephone to expedite an inspection or investigation. Other special messages will be brought to the attention of the Chief, Division of Safety.

3. Division staff personnel will make a verbatim transcription of each message and will also rewrite each message in a Abulletized@ format that completely eliminates anything in the message that could indicate the identity or source of the call. The bullets should capture all concerns or issues raised by the caller and provide as much information as possible to assist the inspector=s investigation.

   Copies of both the complete transcripted message and the bulletized version will be faxed to the district at the same time. Both copies will also be kept on file in the Safety Division.

   The Administrator and Assistant Secretary are to receive copies of all code-a-phone messages.

4. Transcribed messages that:

   a. relate to coal matters will be telefaxed to the appropriate CMS&H District Office;

   b. relate to noncoal matters will be referred to the Metal and Nonmetal Chief, Division of

Safety, who will ensure that the messages are coordinated and telefaxed to the appropriate MNMS&H District Office;

c. relate to "respirable coal dust" and other coal health matters will be coordinated with the Chief, Division of Health, who will ensure that the messages are telefaxed to the appropriate District Office; and

d. alleged "misconduct of MSHA personnel" will be coordinated with the CMS&H Management Office.

5. A record of all Code-a-Phone notifications and investigation reports will be kept on file in the Division of Safety by a designated staff member.

6. District Code-a-Phone investigation reports must be:

a. provided to the Chief, Division of Safety, within 30 days following receipt of the telefaxed Code-a-Phone message; and

b. reviewed by the designated staff member within 15 days after receipt of the investigation report. Any discrepancies or questions regarding the report will be discussed with the Chief, Division of Safety.

7. The designated staff member will:

a. enter the pertinent information from the District investigation reports into the program tracking system and file each report; and

b. submit to the Chief, Division of Safety, a quarterly report and an annual report of these investigations. The annual report, which covers the preceding calendar year, will be submitted with the first quarterly report each year.

I. Inspections Requested by a Representative of Miners When Complaints Involve the National Coal Wage Agreement. The following procedures shall apply when complaints are received involving safety and health disputes under any labor/management agreement in the coal industry. If it is determined that there are reason-

able grounds to believe that a violation or imminent danger exists, a special inspection pursuant to Section 103(g)(1) should be scheduled as soon as possible.

1. If the alleged violation or danger is found to be valid, the inspector shall issue the proper citations or orders. However, if it is found that no violation or imminent danger is connected with the complaint, the inspector will verbally convey these findings to both the company officials and local officials before leaving the mine. Upon completion of this type of Section 103(g) inspection in which the subject of a United Mine Workers of America (UMWA) complaint is found not to exist, written notification shall be provided to the operator and the representative of miners on Form 7000-3a before the inspector leaves the property. The handwritten report will consist of an inspection cover sheet (MSHA Form 2000-22) and a continuation sheet (MSHA Form 7000-3a). The report shall be identified as a Section 103(g)(1) Spot UMWA Inspection on the inspection cover sheet. (Refer to Chapter 8 for instructions for completing these forms.)

2. Violations observed that do not specifically relate to the subject matter of the complaint shall be included in a separate spot inspection report.

J. Construction Site Inspections. Construction sites at existing mines will be inspected as part of the AAA inspection of the mine. Major construction sites may be inspected more often to address unusual hazards at the discretion of the District Manager.

K. Procedures for Evaluating Applications to Become Qualified to Perform Blasting in Underground Coal Mines. On January 17, 1989, a final rule revising the underground blasting standards was published in the Federal Register. This rule requires that all persons performing blasting in underground coal mines either be certified to perform blasting by the state in which the mine is located or be qualified to perform blasting by MSHA. To be qualified by MSHA, underground coal miners must successfully demonstrate to an authorized representative (AR) their ability to safely use permissible

explosives. Although many states presently have programs for certifying blasting personnel, several do not. In these states, MSHA is the qualifying agency and the District Managers have been delegated this responsibility.

The procedures listed below are to be used when evaluating applicants to become qualified to perform blasting in underground coal mines under provision of 75.1301. The basic approach is for each potential qualified blaster to answer a series of questions on the use of explosives and demonstrate critical tasks associated with the blasting operation. The demonstration may either be held underground at the coal face, or on the surface using a simulated coal face. Either way, the same critical tasks must be demonstrated. General instructions for authorized representatives conducting the evaluations are given below. Demonstration questions and answers, an answer sheet, and drawings of an acceptable simulated coal face are available in the District Office.

1. When the demonstration is held at a mine, the AR should inform both mine management and the representative of the miners that he or she is there for a qualified blaster demonstration.

2. When the AR meets the candidates, they should be put at ease. The AR should briefly explain that the purpose of the demonstration is for the candidate to show the ability to use explosives under the provisions of 30 CFR 75, Subpart N, by answering questions and performing certain tasks.

3. To be successful, the candidate for qualified blaster must answer at least 80 percent of the questions correctly and demonstrate the ability to perform the critical tasks. Demonstration of the critical tasks should be permitted only after the required percentage of questions are correctly answered.

4. All questions or tasks not answered or performed properly should be thoroughly discussed with the candidate upon completion of the demonstration. Questions should be repeated as necessary.

5. Successful demonstrations will be documented on MSHA Form 5000-17, Certification/Qualification Examination Report, and submitted to the Qualification and Certification Unit, P.O. Box 25367, Denver, Colorado 80225-0367. A "Qualified Person: Blasting" card will be issued by the Q & C Unit and mailed to the qualified person.

L. Procedures for Determining if Berms or Guards are Required on Elevated Roadways in Accordance with 30 CFR 77.1605(k). MSHA has determined that for off-highway, self-propelled mobile vehicle travel, an elevated mine roadway is that portion of the roadway where at least one embankment is not protected by a natural topographic barrier, and where a drop in grade or height can endanger an uncontrolled or sliding vehicle. Therefore, a roadway on mine property is considered elevated when the embankment slope and height are equal to, or exceed those slopes and heights shown in the chart on page 3-25.[33]

All elevated roadways shall be protected by adequate longitudinal guards. Guards can be earthen berms or rock barriers, or rails, cables, or wire ropes attached to metal or wooden posts. Guards should be capable of moderating or limiting the force of an uncontrolled or sliding vehicle and assist the operator in regaining control.

The primary purpose for the guards is a visual warning and a physical sensation for an operator if an uncontrolled or sliding vehicle should tend to leave the roadway at a hazardous location. When these guards are present, an operator is visually warned first, and if the vehicle should drift off the roadway, there is an additional warning to redirect the vehicle and assist in regaining control.[33]

Berms are used as primary means to guard elevated mine roadways. For acceptable berm construction results, the material should be placed on a solid road foundation and, depending on the grade of the roadway, have drainage openings at regular intervals. Nationally accepted hydraulic design precautions are to be taken to safely convey excess runoff over the embankment slope. For effective berm construction, the material should be dumped, its core densified and

packed by mechanical equipment, and the berm should be at least as wide at the base as the normal angle of repose provides. It is strongly recommended that regular road maintenance include reconditioning and retention of the original configuration of the berm.[33]

Rails, cables, or wire ropes are also an acceptable means of guarding elevated roadways if the required metal or wooden posts are anchored in solid road foundation material according to nationally accepted design practices. Rock barriers are another acceptable means if they are placed on solid road foundation material according to nationally accepted design practices.[33]

These guards should be at least mid-axle height to the largest self-propelled mobile vehicle using the roadway. These guards will warn the operator when traveling too close to the edge of the roadway and will help deflect and redirect an uncontrolled or sliding vehicle.[33]

A clear zone along roadways may be permitted as an alternative method to guards through a petition for modification. The district manager should emphasize that clear zone distances in several studies were developed for highway-class vehicles by the American Association of State Highway and Transportation Officials. Similar data for off-highway equipment is not available, and therefore a conservative extrapolation of highway-vehicle clear zone distances may provide a starting point for mine roads.[33]

Similarly, when roadside guards cannot be constructed due to topography or other special mining conditions, an alternative method may be considered through a petition for modification. The alternative method may include reflectorized posts or signs that are tall enough and clearly visible to the operator of the largest vehicle using the roadway.[33]

III. Accident and Other Types of Investigations

A. Accident Investigations. Procedures for formal reports of accident investigations are covered in Handbook Number I-1, Investigation of Mining Accidents. Reports required in addition to the formal report will contain the citations and orders issued during the accident investigation for violations that contributed to the cause of the accident. Also, Section 103(j) or Section 103(k) orders issued during the investigation are to be included in the accident report. All other citations and orders issued that are not pertinent to the cause of the accident shall be included in a separate report, usually a spot inspection report.

B. Section 101(c) Petitions for Modification Investigations. The procedures for investigating and processing Section 101(c) petitions for modification are found in the Petitions for Modification Procedures Handbook. C. Section 105(c) and Section 110 Special Investigations. Procedures for special investigations are found in the Special Investigations Procedures Handbook.

D. Technical Investigations. Technical investigations are similar to "spot inspections" because the investigations are directed to a specific purpose or subject. Detailed reports of tests, observations, and conditions must also be maintained for these investigations.

E. Electrical Inspections/Investigations. Electrical inspection and investigation procedures are found in the Coal Mine Electrical Inspection Procedures Handbook.

F. Health Inspections/Investigations. Health inspection and investigation procedures are found in the Coal Mine Health Inspection Procedures Handbook.

IV. Part 50 Audit Program

The District Manager shall be responsible for the audit program. Audits will be conducted under the inspection and investigation authority of Section 103 of the Mine Act and 30 CFR Part 50. Audits shall be conducted when necessary as determined by the District Manager. To accomplish these audits, auditors shall review and document information related to accidents, injuries, and occupational illnesses.

They will also review the quarterly employment and coal production reports, which MSHA considers relevant and necessary to determine compliance with the reporting requirements. The auditors will be authorized representatives selected by the District Manager and should have a thorough understanding of Part 50 and audit procedures.

A. Responsibilities.

1. District Manager. The District Manager will:

   a. Direct the audit program and provide the Administrator with a report on the audit results.

   b. Initiate a Part 50 audit whenever circumstances indicate that it is appropriate. In all instances, however, a Part 50 audit will be required at mines at which a chargeable fatality occurred and at mines selected as Sentinels of Safety Award candidates.

   c. Ensure that appropriate enforcement action is taken when required by audit results.

   d. Provide applicable data and guidance to the auditors.

   e. Furnish to the auditors documentation that establishes MSHA policy or procedures concerning 30 CFR Part 50 and the audit program.

2. Auditors. Part 50 auditors will:

   a. Request an audit package for the mine. There are two alternate methods for this:

      1) A computer software package is available that allows the audit forms to be retrieved via personal computer. The necessary software may be obtained by contacting the Statistical Support Systems Branch (SSSB), Information Resource Center, (303) 231-5475. This program allows the required forms to be

generated locally at the time they are needed.

2) Alternatively, the computer-generated audit forms can be obtained from SSSB. The forms that cover the preceding 3 years must be requested at least 2 weeks prior to conducting the audit.

b. Coordinate the audit with the inspector conducting the regular inspection at the mine being audited.

c. Keep the District Manager informed of all changes in plans, schedules, problems that arise during each audit, and any other factors that could affect the progress of the audit.

d. Have some latitude in determining how the audit will be conducted (e.g., number of days and scope of review).

B. Structuring and Conducting the Audit.

1. Consistency. Data collection, data analysis, and audit review shall be as consistent as possible so that a National analysis can be based on the same type of data.

2. Data Collection and Verification. The purpose of data collection in these audits is to allow auditors to check, to the extent possible, all data necessary to determine operator compliance with Part 50. The auditors will review records and conduct interviews, as well as observe mine operator procedures and practices.

In all instances, MSHA Form 7000-1, MSHA Form 7000-2, and the mine operator accident investigation report (where applicable) must be compared against the employment, hours worked, and injury and occupational illness data obtained from Office of Injury and Employment Information (OIEI). Operators who refuse access to such records will be cited.

In addition, auditors should verify compliance by using other data sources. Such sources may include miners' representative and employee interviews and examination of other available records including state workers' compensation records. (Also see 50.11) If discrepancies are found, amended copies of forms shall be immediately submitted by the operator/contractor to OIEI.

3. Protection of Personal Information. Personal information collected in an audit shall be protected from public disclosure under the Freedom of Information Act, 5 U.S.C. 552, and the Privacy Act,5 U.S.C. 552a, as applicable.

C. Preparation and Distribution of Audit Results.

The preparation of audit results and findings will include input and cooperation from all audit members. The auditors will furnish a copy of audit results to the District Manager. A review and discussion will be held if necessary. A copy of the audit results will be filed with background data and relevant documentation on the audit.

The District Manager will send a copy of the completed audit to the Chief, OIEI.

Chapter 4 - Sampling and Collecting Procedures

I. Air Samples

Air samples shall be collected to substantiate violations citing excessive CH_4, CO, CO_2, NO, NO_2, and low O_2, and may be collected at any location deemed to be needed by an authorized representative. Air samples shall be collected routinely in main return(s) at or near the point the return is vented to the surface to determine methane liberation. This does not preclude an inspector from taking additional samples where, based on the inspector's judgment, additional samples are necessary to determine where methane or other gases are present in the mine.[21] The location of samples collected shall be no less than 12 inches from the roof, face, and ribs.

Air samples shall be obtained at surface installations and surface work sites to determine the concentration of noxious or poisonous gases, dusts, fumes, mists, or vapors, and to substantiate violations. Special collection media may be required to sample for the presence of dusts, fumes, mists, and vapors. The Pittsburgh Safety and Health Technology Center (PSHTC) should be contacted for guidance on special collection media.

A. Air Sample Bottles. The 10 ml air sample bottles shall be used to collect all air samples (except those collected at fire seals) during the investigation of fatalities or natural deaths where the quality of air may be a factor, and when analysis of a constituent not routinely reported is desired. Do not use the 10ml air sample bottle for CO, CO_2, NO, and NO_2 analysis. Use the 50 cc, 60 cc, or 250cc air sample bottles.

B. New Mine Atmosphere Sample Record (Card) - MSHA Form 2000-43 and Procedure for Completing.[21] There were several changes in the new card and procedures implemented in 1995. A space was added to indicate samples to be used in the calculation of total methane liberation for a mine. Space is provided to indicate the number of samples necessary to calculate total liberation for a mine. A space was also added to indicate the last sample needed to calculate total methane liberation for a mine. Space is also provided to indicate the code for the office that has responsibility for inspecting the mine. The sample number will be printed on the vacuum bottle instead of the Mine Atmosphere Sample Record.

It is important that care be taken when determining the number of samples necessary to calculate total methane liberation for a mine. If duplicate samples are collected at any location for any reason during an AAA inspection, only one sample should be marked for use in the calculation of total methane liberation for the mine. These changes will allow the MSHA laboratory to calculate total methane liberation for a mine and make available information that currently has to be calculated manually.[21]

The Mine Atmosphere Sample Record will no longer have a sample number printed on a perforated adhesive strip. The number will be printed on the bottle label and a space will be provided on the card for the bottle number to be written.[21]

This change will facilitate sample handling in the laboratory by eliminating the adhesive portion of the sample record card. The laboratory now has an automated analysis system and the adhesive strip interferes with the system operation.[21]

Instructions for completing the revised Mine Atmosphere Sample Record are as follows:

1. Bottle Number - Enter the bottle number printed on the label of the bottle being used.

2. Mine I.D. - Enter the 7 digit I.D. Number assigned to the mine where the sample was collected.

3. Number - This is the number of the sample being collected during the event. For example, the first sample taken would be number 1, the second sample number 2, etc.

4. TL - Check this block for each sample collected during an AAA inspection that is to be included in calculating the total liberation for the mine. Leave this block blank for all other samples.

5. Mine - Enter the name of the mine where the sample was collected as it appears on the Legal I.D.

6. Incomplete - Check this block if more samples will be collected during this inspection.

7. Complete - Check this block when the last sample for the inspection event has been collected.

8. Company - Enter the name of the company as it appears on the Legal I.D.

9. Collector (name and mailing address) - Enter the name and business address of the person collecting the sample.

10. Field Office responsible for AAA inspection (F.O. code) - Enter the 5-digit code for the office with responsibility for inspecting the mine. This is not necessarily the office where the inspector collecting the sample is assigned.

11. Location in mine - Include a brief but clear description of the location in the mine where the sample was collected; such as 300 ft outby spad number 9194 in No. 6 entry on the 002-0 section.

12. Date - Enter the date the sample was collected.

13. Air Quantity - Enter the calculated air quantity measured at the location where the sample was collected.

14. Ch4 - Indicate the volume percentum of methane, as determined with an approved methane detector, at the time the sample was collected.

15. No. of sampling points required to calculate TL - This is the total number of sampling points needed to calculate the total methane liberation for the mine.

16. Last TL Sample - Check this block when the last sample needed to calculate the total liberation for the mine has been collected.

17. For Lab Use Only - Do Not Write in This Space. This is for use by laboratory personnel only.

18. Remarks-- The "Remarks" section on the front side of the Mine Atmosphere Sample Card may be used to convey any additional information concerning the sample deemed necessary. For example:

    a. pressure on seals (inches water gage, positive or negative);

    b. barometric pressure; or

c. special analysis desired.

Air samples sent to the lab are routinely analyzed for CO2, O2, CH4, and C2H6. If analysis for CO, H2, or other constituents is needed, indicate the chemical by symbol in the remarks section. Do not use ordinary 10ml or 50ml bottles to sample for SO2, H2S, oxides of nitrogen, or aldehydes. Special testing tubes or vessels are needed.[21]

The results of all air samples sent to the MSHA laboratory for analysis will be transmitted to the appropriate office (district, subdistrict or field office) in a report. This report should be filed with the inspection report.[21]

C. Special Air Samples. When special samples are collected in connection with a problem arising at a mine or to substantiate a violation (i.e., less than 19.5 volume per centum of oxygen, more than 0.5 volume per centum of carbon dioxide, harmful quantities of other noxious or poisonous gases), inform laboratory personnel of the problem involved. Mark the Mine Atmosphere Sample Record for special samples with a conspicuous red "S" on the front of the card in the upper left corner.

Listed below are the procedures to follow in processing air samples taken to substantiate violations:

1. Describe in the citation or order the location where the air samples were taken to substantiate the violation.

2. Make a notation on the Mine Atmosphere Sample Record stating the number of the citation or order, the initials of the inspector, and the date and time of issuance.

Mail special samples as soon as possible after collection. When such samples are received in the laboratory, they will be given preference over other samples and the analytical results will be telephoned to the appropriate office. It will be the responsibility of the District Manager or Subdistrict/ Assistant District Manager to transmit the results to the inspector promptly after receipt. The information relayed by telephone shall be followed by a written report from the laboratory, when possible, with the following in

cluded: (1) inspector's last name; (2) bottle number; (3) carbon dioxide; (4) oxygen; (5) methane; and (6) mine name (e.g., Smith, C5518, 0.16, 18.97, 2.90, Bell No. 4).

D. State/Mine Operator Samples. Regulations do not prohibit analyzing samples collected by persons not employed by MSHA, but the practice shall be kept at a minimum. When convenient or expedient for MSHA to have mining companies or State representatives collect air samples, send a memorandum to the laboratory identifying the collector and the reason for such collection. Samples will not be analyzed until such information is received.

The collector shall be properly instructed by MSHA on the sampling method, on how to fill in the necessary information on the Mine Atmosphere Sample Record, and on the packing and mailing procedures. The Mine Atmosphere Sample Record must indicate an MSHA representative to whom the analytical results are to be sent.

E. Mailing Air Samples. Where possible, mail the maximum number of samples that a holder/mailer will accommodate at one time; however, mail air samples within 5 days after collecting. The 5 days include Saturdays and Sundays. Mail samples collected from more than one mine in the same holder/mailer.

Mail all air samples (in accordance with postal regulations) to:

Gas Analysis Laboratory
Mine Safety and Health Administration (MSHA)
P.O. Box 112
Mt. Hope, WV 25880

F. Analysis of Air Samples. If the analysis of an air sample discloses a violation not determined with testing instruments during the inspection, return to the mine and issue a citation.

II. Air Measurements

A. Anemometer. Use an anemometer or other approved device to measure the velocity and determine the volume of air for compliance with the Act and for calculating the liberation of methane in, but not limited to, a return air course. When determining air velocities, take a traverse reading of the cross section that is measured. Use correction factors for the individual anemometers to determine the actual air velocity. Tape the anemometer correction factor chart to the anemometer for reference to determine the correct velocity. When determining air velocities less than 100 feet per minute, use chemical smoke since the types of anemometers generally used by inspectors are unreliable at these velocities. However, if the instrument is calibrated for a lower velocity, it is acceptable.

B. Pitot Tube. The pitot tube is a primary standard instrument for determining velocities of 750 to 10,000 fpm. Velocities in excess of 2,000 fpm may crack the bearings of ordinary vane anemometers and thus prohibit their use in high velocities. Commercial type pitot tubes generally are accurate to within 1.0 percent and specially made types can be accurate to within .01 percent. High airflow velocity measurements are often required in auxiliary fan tubing or main fan ducts. For such measurements the pitot tube is often the most practical instrument.

Use the pitot tube in conjunction with a differential pressure gauge, such as a manometer or water gauge, to determine the velocity pressure of the airflow. The gauge most commonly used by MSHA is the "Magnahelic" which provides a reading in inches of water (in. wg.). Using the inches of water reading, determine the velocity and air quantity by calculation or by using conver-

sion tables. Further information about the techniques for using anemometers/chemical smoke and pitot tubes is available in the 1960 Bureau of Mines Bulletin 589, "Introduction to Mine Ventilation Principles and Practices."

To convert inches of water to velocity, use the following formula:

$$V = 4000 \sqrt{VP}$$

Where V = velocity in feet per minute (fpm)

VP = velocity pressure in inches of water (in. wg.)

NOTE: To correct centerline measurements, multiply velocity (V) by a method factor of 0.9. The true velocity is then multiplied by area (A) to obtain air quantity (Q).

C. Smoke Clouds. Timed smoke clouds are commonly used to determine air velocities that are too low to be measured with anemometers. Do not use anemometers to measure velocity if the indicated velocity falls below the minimum shown on the anemometer's correction chart. The proper procedures for making timed smoke cloud measurements follow.

1. Location of the Measurement. Select a smooth, straight, unobstructed section of the airway so that air current will not be disturbed. (Refer to Figure 2.)

   a. Measure distance (d) from the selected point of beginning to the end point. This measured distance will be determined by the degree to which the smoke cloud remains intact, how well it can be seen, and the airflow rate over the measured area. Greater distances increase accuracy if the smoke cloud can be seen clearly. Twenty-five feet is usually adequate. At low flow rates, the distance may be reduced to 5, 10, or 15 feet.

   b. Calculate the airway area. When calculating air quantity for shorter times and distances, the airway area is usually measured at two points -- one near the release point and one near the timing point. Three area measure-

ments are recommended for distances of at least 25 feet. Use the average value of the measured areas to compute the air quantity. More than three area measurements may be used to obtain a more accurate measurement when required or when the cross-sectional area is very irregular.

Figure 2: Taking Timed Smoke Cloud Readings

2. Taking Readings. For best results, two people (one at each end of the measured distance) should work together.

   a. The upstream person breaks off both ends of the chemical smoke tube and inserts one end into the rubber tubing of the aspirator bulb. Wear gloves when breaking off the tube ends and using smoke tubes to prevent serious cuts. Also wear eye protection when breaking off the ends of the smoke tube. Provisions are usually provided in the box or container to break tube ends cleanly. Do not dispose of used tubes in travelways.

b. The upstream person holds the aspirator bulb and smoke tube away from his/her body. Squeeze the aspirator bulb to force air through the glass tube which contains the smoke-generating chemical (only a small puff of smoke is necessary).

c. Release the smoke perpendicular to the airstream (facing the mine rib). When the upstream person signals release of the smoke cloud, the downstream person starts timing, with a stopwatch, how long the smoke cloud takes to travel over the specified distance.

d. If a stopwatch is not available, use a watch with a sweep second hand. In this case, the downstream person should signal for release of the smoke cloud when the second hand reaches a reference point.

e. Record the time interval from the release of the smoke until the leading edge (front) of the smoke cloud reaches the downstream person. The leading edge is used because the first part of the smoke should just be leaving the tube and starting to travel downstream in the air current when the timing begins.

f. Divide the airway cross section into four quadrants and time smoke clouds in <u>each</u> of the four quadrants. (Refer to Figure 3.) Make at least one measurement at the center point of each quadrant. Make several measurements in each quadrant for greater accuracy.

Figure 3: Section Showing Quadrants

3. Calculating Air Quantities from Timed Smoke Cloud Measurements. Use the four steps covered in this section to calculate air quantity from timed smoke cloud measurements.

STEP 1 - AVERAGING READINGS

Assume that the following data were recorded during smoke cloud measurements:

Smoke Travel Time In Seconds

Quadrant	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Average
Upper right	5	6	6	5	6	5.6
Lower right	7	7	8	14*	8	7.5
Upper left	7	7	6	7	6	6.6
Lower left	6	6	7	8	6	6.6

* Throw this value out.

Times that are considerably longer or shorter than the others in a quadrant should not be used in figuring the average smoke cloud travel time. They probably result from a momentary fluctuation in velocity (someone opening a door, etc.). Such irregular times should be discarded (thrown out).

When calculating average times for each quadrant, do not use a zero for values which are "thrown out." Base the average only on the number of trials "kept in."

Example:

Average time (t_{avg}) for the lower right quadrant = $\frac{7 + 7 + 8 + 8}{4}$ = 7.5 seconds

t_{avg} (upper right) = $\frac{5 + 6 + 6 + 5 + 6}{5}$

t_{avg} (upper right) = 5.6 seconds

After calculating the average travel time (t_{avg}) in each quadrant, the final average for the entire airway is determined. Using the data from the table above, the final average travel time would be:

$$t_{avg} \text{ (final)} = \frac{\text{total of average quadrant times}}{\text{number of quadrants}}$$

$$t_{avg} \text{ (final)} = \frac{5.6 + 7.5 + 6.6 + 6.6}{4}$$

t_{avg} (final) = 6.6 seconds

STEP 2: CALCULATING AIR VELOCITY

Now use the average smoke cloud travel time and the measured distance to compute the air velocity by using the formula:

$$V = \frac{d}{t} \times 60 \frac{\text{sec}}{\text{min}}$$

Where V = calculated air velocity in feet per minute (fpm)

d = measured distance in feet (ft)

t = final average travel time over d in seconds (sec)

Example:

If the measured distance used to determine velocity is 10 feet, then

$$V = \frac{10 \text{ ft}}{6.6 \text{ sec}} \times 60 \frac{\text{sec}}{\text{min}}$$

V = 90.0 fpm

The average velocity obtained by the timed smoke cloud technique is about 10 percent higher than the true velocity when readings are taken at the centerline of four quadrants. Therefore, a correction called "method factor" should be applied. The method factor for smoke cloud measurements in four quadrants is equal to 0.9. This factor, when multiplied by the calculated velocity, yields the true velocity.

True Velocity = Calculated Velocity x Method Factor

True Velocity = 90.0 fpm x 0.9 = 81.0 fpm

STEP 3: CALCULATING AVERAGE AREA

The next step in determining air quantity is to calculate the average (A_{avg}) of the airway over the measured distance.

Example:

STEP 4: CALCULATING AIR QUANTITY

Air quantity can now be determined by using the formula

$$Q = VA$$

Where: Q = air quantity in cfm

V = air velocity in fpm

A = airway cross-sectional area in sq.ft.

Therefore:

V = 81.0 fpm

A = 74 sq.ft.

Q = 6053 cfm

4. Using Air Velocity Table. The Air Velocity Table (Figure 4) can be used as an alternative for calculating air velocity. When the final average time has been calculated (6.6 seconds in Step 1 above), simply locate the air velocity on the table.

   Example:

   Find 6.6 seconds in the "TIME SEC" column. For a measured distance of 10 ft the air velocity equals 82 fpm.

Figure 4: Velocity Table for Smoke Cloud Measurements

III. Rock Dust Samples

A. Collecting Samples. Collect samples to substantiate the violation when citing inadequate rock dust. Collect the usual samples of mixed dust by the band or perimeter method from the entry or room, including a 1-inch depth of the material on the floor. Combine dust from the roof, ribs, and floor into one "band" sample. If the amount collected is more than required, thoroughly mix the sample, cone and quarter to cut the bulk to the desired amount. Occasionally, it may be necessary to take more than one strip, but in such case, the total width of the strip must be the same for the roof, each rib, and floor. Collect separate supplies of dust from either the roof, ribs, or floor when deemed necessary.

Where the coalbeds are so thick that it is impractical and unsafe to collect full perimeter samples, collect a floor sample and a sample from the ribs to the maximum height at which this can be done safely and practically. The rib sample and the floor sample may be either combined or prepared separately. When rib samples are collected and reported separately, assume the incombustible content of the rib sample represents the incombustible content of the rib and roof surface at the sampling location.

B. Rock Dust Surveys. To obtain data to form conclusions regarding adequacy or inadequacy of rock dusting in a mine, the following sampling is required in addition to spot location sampling:

1. During each regular inspection, make uniform rock dust surveys in each advancing section. Also, areas not sampled during prior regular inspections because of wet conditions shall be identified. Locations where two or more consecutive samples were not collected shall be inspected and samples collected when conditions permit.[29]

2. Identify samples as shown on the sketch for rock dust surveys. (Refer to Figure 5.)

3. The first line of samples A-1, B-1, C-1, D-1, and E-1 are zero points and are 15 feet inby the reference point, which is the centerline of the right air course of main west.

4. The other lines of sampling are at 500, 1000, and 1500 feet inby the zero point.

Figure 5: Sketch for Rock Dust Survey

Include in the collection of dust samples a representative number of crosscuts. Where possible, the maximum interval between sample locations shall be not more than five or six crosscuts. The survey number shall precede the sample number when two or more surveys are made.

When filling out the Dust Sampling Lab Report (MSHA Form 2000-156, Figure 6), type or use a pen to fill in the information.

1. **Date Received, Lab, Numbers, and Results** - for laboratory use only and must not be filled in by the inspector.

2. **Company and Mine** - name of company and mine name or number.

3. **Collector** - name(s) of inspector(s) that collected the samples.

4. **MMU Number (Mechanized Mining Unit)** - this number is available from the mine file.

5. **Date of Sampling** - date the sample was taken.

6. **Field Office Code and Name** - the correct District Code must be used as this will give sufficient data for the laboratory records as to the State, county, and field from which the report originates.

7. **Sampling Area** - the length and description shall be kept to an absolute minimum.

8. **Zero Point** - must be tied to something relatively permanent.

Do not use the normal sampling point designation for a particular point at some other location. For example, if there were a roof fall, bad roof, or the place was too wet to sample at B-3, the designation "B-3" would appear on the sampling report with the proper statement under "Location in Mine." If the sampling location is less than 40 feet from the face, do not take a sample.

Figure 6: Dust Sampling Lab Report

Determine the starting point from the face for such surveys, and that point must be tied into something relatively permanent such as an intersection, survey station, pump room, or borehole. To say that a sample was collected a certain distance from a working face is meaningless. The sampling area must be well described and tied down firmly so it can be located on the mine map by either the operator or another inspector.

Where surveys are made in more than one section or area of the mine, the samples in each survey shall be numbered as shown below with each sample letter being preceded by the survey number.

Survey No. 1	Survey No. 2	Survey No. 3
1A1	2A1	3A1
1A2	2A2	3A2
1B1	2B1	3B1
1B2	2B2	3B2

Where only one survey is made in a mine, numerals preceding the sample letter are unnecessary.

C. Spot Location Samples. Consecutively number the spot location samples with numbers only. Do not use letters since letters are used to designate the dust survey samples. List the spot location samples and dust surveys on separate sample cards, but they can be mailed in the same box.

D. Use of Plastic Bags. Use only red and blue plastic bags for uniform rock dust survey samples. Ship the dust samples collected at spot locations in other areas of the mine in uncolored bags. Use blue rock sample bags for rock dust samples collected in return air-courses. The use of different colored bags for the different types of samples helps the laboratory separate and identify the samples. Fill the plastic bags at least half full.

Use the following procedures when using plastic bags:

1. The identifying tags are blank and each inspector can use his or her own numbering system on the face of the tag. Include the name of the inspector and the name of the mine on the back of the tab. Consecutively number or code the samples for any one inspection. The numbers or code used shall not exceed three digits. The numbering

system may start with "No. 1" or with "A," "B," "C," etc. Be certain that the identification is legible.

2. The bags are long enough to permit tying a knot in the open ends when they contain the average size sample. Securely tie the string of the tag within the formed knot of the sample bag. The laboratory requires the inspector's name, the name of the mine, the properly numbered tag attached firmly to the sample, and a completed sampling card.

If the mine name is clearly printed on the A-1 sample tag and about every other 10th bag of the survey samples, it will be sufficient for the laboratory's needs.

Do not put these sample numbers in the column for "Lab. No." (See Figure 6.) For the "Sample of" column, the word "band" is acceptable for a sample representing the full perimeter at the point of sampling.

Where dust samples have been collected at spot locations in return air courses or intake air courses, include the words "return airway" or "intake airway" in parentheses, as applicable, after the location of each sample on the cards forwarded with the samples.

All samples submitted without the collector's name and office address will be analyzed but the report will be held until this information is received.

E. Mailing Dust Samples. Mail the samples as soon as possible in accordance with postal regulations. Securely seal the shipping boxes to prevent loss of samples in transit. Do not use cellulose adhesive (scotch) tape to seal boxes. Include the return address on the shipping label.

Use a regular corrugated pasteboard carton, but fill voids around the bags with crumpled newspaper to keep the bags from breaking open from rough handling. Do not use crumpled manila envelopes, excelsior, paper towels, or tissues as packing.

IV. Analysis of Dust Samples

A. Volumeter Analysis. The dust laboratory will use the volumeter method for analyzing and reporting the contents of all dust samples received except for samples that, when analyzed by the volumeter method, indicate

an incombustible content ranging between the allowable limit and 10 percent below the allowable limit. These samples will also be analyzed chemically, and the chemical analysis will be given in the analytical reports.

B. Analysis Results. When the analysis of mine dust samples taken to determine the incombustible content discloses a violation, proceed as follows:

1. If more than 10 percent of the dust samples collected in a dust survey of a particular area or section are substandard, as shown by analysis, issue a citation.

2. In those cases where less than 10 percent of the samples collected in a dust survey are substandard, as shown by analysis, notify the company and have such areas rock dusted to meet the required standards. Then examine these areas again, and if suitable corrective action has not been taken, issue a citation.

3. When an inspection report has been released prior to receiving results of the samples and if the samples are "bad," make a spot inspection and make the actions taken to correct the condition a part of the spot inspection.

Chapter 5 - Citations and Orders

I. Violation Description

The description of the condition(s) and practice(s) must clearly state the fact(s) that constitute the violation of the Mine Act or a specific health or safety standard or regulation. The description shall be written to show how and to what extent the Act and/or regulation is violated. The location in the mine where the violation and hazard exist must be identified for several reasons:

A. to ensure timely abatement;

B. to inform the operator which area of the mine is affected by the citation or order;

C. to inform the miners and their representative where the violation or hazard exists; and

D. to inform other inspectors who may be required to conduct a subsequent inspection.

The inspector shall identify and give the location of any equipment involved. The description of the violation shall include any facts relevant to exposure hazards to the miners and negligence on the part of the operator.

All citations and orders must be well written and legible. Use a ballpoint pen with black ink to fill out all the legal documents.

Each violation observed shall be cited in a separate citation or order in accordance with MSHA's Program Policy Manual. Also, the issuance of many citations and orders may require other standards to be cited. For example, a violation under Section 317(c) of the Mine Act for smoking materials may require that a violation be cited under 30 CFR 75.1702 for an ineffective search program. Or a violation cited under 30 CFR 75.202 for loose or over-hanging coal ribs may require a violation to be cited under 30 CFR 75.360 for inadequate pre-shift examinations and/or under 30 CFR 75.362 for inadequate onshift examinations.

Normally, citations and orders of withdrawal are issued to the operator of a mine. However, under Section 317(c), a citation may be issued directly to a miner.

The filing, by the mine operator or the representative of the miners, under Section 105(d) of a notification to con-

test the reasonableness of the length of time set for abatement by a citation does not constitute a stay of the citation.

II. Standards Incorporated by Reference

There are sections of Title 30 CFR that incorporate, by reference, the safety standards established by other organizations, such as the National Electrical Code and the National Fire Protection Association Code. When issuing a citation under these sections, specify the particular safety standard that has been incorporated by reference. For example, when citing a violation of 30 CFR 77.516, include in the citation the specific portion of the 1968 National Electrical Code that applies.

Listed below are the major sections found in 30 CFR Parts 75 and 77 that incorporate safety standards of other organizations.

75.1101-7	--	Installation of water sprinkler systems; requirements
75.1103-2(b)	--	Automatic fire sensors; approved components; installation requirements
75.1107-3(b)	--	Fire suppression devices; approved components; installation requirements
75.1107-16(b)	--	Inspection of fire suppression devices
75.1712-3	--	Minimum requirements of surface bathing facilities, change rooms, and sanitary toilet facilities
75.1730	--	Compressed air; general; compressed air systems
77.301(b)	--	Dryer heating units; operation
77.403a(b)	--	Mobile equipment; rollover protective structures (ROPS)
77.506-1	--	Electric equipment and circuits; overload and short circuit protection; minimum requirements
77.516	--	Electric wiring and equipment; installation and maintenance
77.807-1	--	High-voltage powerlines; clearances above ground
77.901(c)	--	Protection of low- and medium-voltage three-phase circuits
77.901-1	--	Grounding resistor; continuous current rating
77.1103	--	Flammable liquids; storage
77.1109	--	Quantity and location of firefighting equipment
77.1301(c)(1)	--	Explosives; magazines

III. Transmittal and Distribution of Citations and Orders

Citations and orders will be transmitted as written by the coal mine inspector. Therefore, the inspector should use utmost care in preparing these forms. When the inspection or investigation is completed, assemble and forward all documents according to District policy.

When a citation, order, or notice to provide safeguards is issued, the original of the four copies shall be retained in the District or Subdistrict mine file. The second copy is for the operator's record and use; the third copy is for the operator to post on the bulletin board [including citations issued under Section 317(c)]; and the fourth copy is for the inspector's use. Additional copies of these completed forms will be reproduced and distributed, as required, to the mine operator, unions, representative of the miners at the mine, Office of Assessments, and the appropriate State mining agency.

Figure 7: Closed Poster

IV. Handling Orders - Closed Poster

When an order has been issued, conspicuously post a mine or equipment "Closed" poster (MSHA Form 7000-9, Figure 7) so that anyone approaching the area can see it. Posters are normally posted:

A. at the portal of the mine if the entire mine is closed;

B. at the entrance to the section if a section is closed; or

C. on the controls of equipment involved in the order.

V. Refusal to Accept Citations and Orders

In those instances when a citation or order of withdrawal is written and the operator refuses to accept it, do not become argumentative. Inform the operator that since he or she will not accept the citation(s)/order(s), it will be delivered to the office. Write "Delivered to the Mine Office" on the body of the citation/order and deliver it to the designated mine office. Advise someone at the mine (preferably management) that the citation(s)/order(s) is being left at the mine office or other designated place, lay it on a desk or table, and leave. Make notes of these circumstances.

If the operator becomes abusive, take the citation(s)/order(s) back to the MSHA office, and mail it to the operator at the address of record, by certified mail with return receipt requested. In the "Served to" block of the citation/order, write "By Certified Mail."

VI. Documenting Safety and Health Conferences

Refer to the Alternative Case Resolution Procedures Handbook, PH94-I-2, dated May 1994, for procedures for documenting Safety and Health Conferences[22].

VII. Transmitting Citations and Orders to Office of Assessments

A. Submit all Section 104(a) citations issued in conjunction with an imminent danger order at the same time.

B. Submit all Section 104(a) and 104(d)(1) citations with subsequent Section 104(b) orders at the same time.

C. Submit all citations listed in an accident report as having caused or contributed to the cause(s) of an accident with a copy of the accident report.

D. Submit a copy of the Notice to Provide Safeguards with any citations issued for violations of 30 CFR 75.1403.

E. Transmit citations not yet terminated, but near the 180-day limitation, along with a memorandum explaining the reasons why they have not yet been terminated.

VIII. Section 107(a) - Imminent Danger

The Mine Act defines "Imminent Danger" as ". . . the existence of any condition or practice in a coal or other mine which could reasonably be expected to cause death or serious physical harm before such condition or practice can be abated."

The two important elements of an imminent danger are:

A. the existence of a condition or practice which could reasonably be expected to cause death or serious physical harm, and

B. the imminence of the danger may cause death or physical harm before it can be abated.

An imminent danger withdrawal order usually involves a violation of one or more mandatory standards, but such an order could also arise from natural or other causes without violation of a standard. The imminence of danger is a judgment to be made in light of all relevant circumstances.

If the condition or practice is not an imminent danger, the inspector must issue a citation or order for a violation of the Mine Act and/or a mandatory health or safety standard, and set a time for abatement, if applicable. If combined conditions and practices for which citations and orders are issued create an imminent danger, then the inspector must issue a Section 107(a) order of withdrawal.

In the absence of an imminent danger, do not use Section 107(a) orders for "control purposes." The Mine Act and applicable legal decisions require the existence of an imminent danger to justify the issuance of a Section 107(a) order.

Because the purpose of Section 107(a) imminent danger orders is to immediately remove miners from exposure to serious

hazards in the mine and to prevent miners from entering such hazardous areas, an imminent danger must be impending at the time an order is issued. Therefore, when an imminent danger is observed, the inspector must issue a written Section 107(a) order as soon as possible and at the time the imminent danger is observed if practical, or issue an oral Section 107(a) order, which should be documented in writing as soon thereafter as practical.

An oral Section 107(a) order should be stated in precise terms such as "I am issuing you a Section 107(a) imminent danger order." At the least, the inspector must use the words "imminent danger" or "107(a)" at the time the oral order is issued. A written order issued after an oral Section 107(a) order should clearly state that it is confirming an oral imminent danger order and identify:

1. the individual to whom the oral order was issued;

2. the time and date the oral order was issued;

3. the location at which the oral order was issued; and

4. the reason the oral order was issued (this should be presented in the standard manner developed for issuance of Section 107(a) orders)[23].

An inspector can usually identify an imminent danger when a specific hazardous condition exists. However, when underlying root causes and/or practices are considered a part of an imminent danger, inspectors should use caution and due diligence. Practices develop over a period of time. Therefore, the gradual development of a practice is not as apparent as the sudden appearance of a hazardous condition. The inspector should be aware of the gradual development of such hazardous practices and take time to outline the action that must be taken. The developing stages of a cause and/or practice that has the potential to lead to an imminent danger should be discussed with mine management and with the MSHA District or Subdistrict/Assistant District Manager. Citations, orders, or safeguards that have been issued for a condition or practice, or for a similar or related condition or practice shall be considered when evaluating a situation to determine the failure, inability, or complacent attitude that permits a hazard to exist.

Imminent danger orders shall not be terminated until the condition(s) or practice(s) that caused such imminent danger

no longer exists. Base withdrawal orders under this section on a danger that has not subsided or been abated. This does not prohibit terminating any citation or order that was issued as a contributing factor in the Section 107(a) order of withdrawal. An order under Section 107(a) may be validly issued for conditions and/or practices not constituting violations, and may be issued when no miners are in the mine in order to keep them out until the danger has been eliminated. If an imminent danger is found to exist in a mine, issue an order pursuant to Section 107(a). The order must remain in effect until the condition(s) and practice(s) that constitute the imminent danger are corrected.

In addition to the consequence(s) of the hazard or potential for the hazard to cause serious physical harm, the inspector should consider why the hazard exists. If the cause(s) can be determined, after a thorough investigation of the incident, then include them in the Section 107(a) withdrawal order. (Refer to Chapter 8, Example 14.) The imminent danger must be removed and the fundamental or base cause must be corrected, or there is every reason to believe that the condition will recur without warning. It is not necessary to attempt to determine the probability that an accident will occur, only that you are reasonably sure the occurrence is imminent. After the imminent danger order is issued, issue a separate Section 104(a) citation for each violation included in the Section 107(a) order. Each violation included in the Section 107(a) order must be significant and substantial. A Section 104(d)(1) citation cannot be issued in conjunction with an imminent danger order.

The inspector's notes must be sufficient to substantiate the belief that an imminent danger exists at the time the Section 107(a) order is issued. However, there may be occasions when the notes are completed after the issuance of a Section 107(a) withdrawal order.

Chapter 8, Section XIV, contains examples of a Section 107(a) withdrawal order with standard(s) violated and underlying causes shown, and a Section 107(a) withdrawal order with multiple violations.

NOTE: Do not give an abatement time for citations issued as part of an imminent danger order as long as the order is in effect. The body of these citations should state, "No abatement time is given because this condition is part of imminent danger order number 01234567."

IX. Section 104

If during an inspection or investigation a condition or practice is found that violates a mandatory standard, the inspector shall issue a citation or order under Section 104 of the Mine Act.

A. Section 104(a) Citations. Section 104(a) is a major tool for obtaining compliance with the Mine Act, mandatory safety or health standards. The inspector shall cite violations that do not fall within the criteria for Sections 104(d) or 104(e) under Section 104(a), and give a reasonable time for abatement. Do not set an abatement period because of convenience to the operator or you, nor set a time that is known to be insufficient. In most cases, the reasonable abatement time should never end on an idle shift or a weekend. The inspector should make every effort to re-inspect the area as soon as the time has expired.

If the hazard is corrected before you leave the mine, and the area has been re-inspected on the same day the violation was observed, document both the violation and termination on the same MSHA Form 7000-3.

1. Extension of Citations. Extend the time for the abatement of citations only when the operator is able to establish to your satisfaction that due diligence has been exercised in an attempt to gain compliance during the original established time period, and, that despite such a diligent effort, compliance was not accomplished.

In determining diligence, the inspector should consider the time permitted for abatement, the work to be performed, the operator's ability to obtain delivery of equipment or supplies, and the total effort expended on such work. The inspector should also consider the degree of danger that an extension would cause to the miners, as well as the disruptive effect that a failure to grant an extension would have upon operating shifts. When an extension of time for the abatement of a citation is granted, the reasons for such action shall be documented fully. The following conditions can be reasons for granting time extensions:

a. inclement weather conditions;

b. work stoppages (dates should be given);

c. partial construction or completion of spillways, diversion channels, underdrains, buttresses, etc.;

d. partial or complete extinguishment of fire areas;

e. partial or complete regrading of steep slopes;

f. contractual agreements with consulting firms, etc., for the preparation of engineering plans or reporting requirements; or

g. field work necessary for the finalization of engineering plans or reporting requirements.

2. Modifying, Terminating or Vacating Citations and Orders. Sections 104(h) and 107(d) of the Mine Act state the legal authority of inspectors or their supervisors, acting in their capacity as authorized representatives of the Secretary to modify or vacate citations and orders.

a. Citations or orders occasionally require modification to correct an error or make adjustment to the facts stated on the original document. To lessen the need for subsequent action, the inspector should fully and accurately document the violation and surrounding circumstances on the citation and/or order form.

When modifying a citation or order, clearly state the change or correction so that the item being changed and the change itself are easily understood. More than one action can be accomplished on a single modification form. For example, if a citation needs a word change, a change in the degree of negligence, and it has also been abated, all of these changes can be handled on one subsequent action form. Each of these changes must be separated on the form and stated clearly.

b. The inspector must terminate citations and orders for which the operator has abated the violation or removed the imminent danger; and assure either visually or by some other posi-

tive means that the condition or practice that constituted the violation has been rectified.

When terminating or vacating a citation or order, the inspector should clearly and fully describe the action taken to abate the violation or the reason for vacating a citation or order in the body of the subsequent action form. Statements like "the condition was removed" are not acceptable.

B. Section 104(b) - Failure to Abate Order of Withdrawal. Section 104(b) authorizes a withdrawal order to be issued if an operator fails to abate a violation within the period of time set forth in a citation issued under Section 104(a) or 104(d)(1). Upon expiration of the time originally fixed or subsequently extended, the inspector shall make a determination as to whether circumstances justify granting additional time.

If an extension of time is not justified, and the condition(s) or practice(s) and the violation have not been corrected, issue a withdrawal order under Section 104(b). Any action taken by the inspector relevant to the issuance of a 104(b) order for the closure of a mine or a portion of a mine must be justified in the narrative of the order. The inspector must find, based on objective information or evidence, that the operator's noncompliance results in a safety or health hazard to the miners in the mine or portion of the mine.

After determining that an order of withdrawal for failure to abate should be issued, the inspector may be unable to determine if an area of the mine is affected by the violation. This normally occurs when the operator denies entry or fails to permit a representative of the miners to accompany the inspector. Under these circumstances, issue a "no area affected" order of withdrawal.

C. Significant and Substantial Violations. In determining whether a violation could "significantly and substantially contribute to the cause and effect of a mine safety or health hazard," inspectors must first find that (1) an injury or illness would be reasonably likely to occur if the violation were not corrected; and (2) if the injury or illness were to occur, it would be reasonably serious.

Both of these findings must be made before a violation can be designated as "significant and substantial." Therefore, at the time a violation is observed, the inspector must evaluate the hazard posed by the violation in these two respects. All of the facts relevant to this evaluation should be included in the inspector's notes. Violations designated as "significant and substantial" should also be consistent with the information recorded on the Inspector's Evaluation Section of MSHA Form 7000-3, Mine Citation/Order.

1. Completing Inspector's Evaluation Section of MSHA Form 7000-3 (Refer to Chapter 8, Section IV.).

   a. Likelihood of Injury or Illness. At the time a violation is observed, the inspector shall evaluate the particular facts involved and form an opinion as to whether an injury or illness is reasonably likely to occur, if the violation is not corrected. All the factors relied upon to make this judgment shall be included in the inspector's notes.

      When applying this first part of the test for designating a violation as "significant and substantial," it is not necessary to evaluate the likelihood of injury or illness in terms of mathematical chance. Instead, use background, training, and experience, together with an evaluation of actual circumstances surrounding the violation, to arrive at an independent judgment. For example, general factors such as the fatality and injury or illness frequency associated with the violation in the general industry and at the particular mine may be combined with an evaluation of the actual circumstances. These circumstances include the likelihood of exposure, the number of miners exposed, and the existence or nonexistence of redundant safeguards (e.g., fire extinguisher inoperable but other available fire suppression device in working order). This part of the test is satisfied when, in the inspector's opinion, an injury or illness is reasonably likely to occur if the violation is not corrected.

      Finding that an injury or illness is highly likely or has already occurred also is consistent with designating a violation as "sig-

nificant and substantial." An injury or illness is highly likely when it can reasonably be expected to occur before the violation can be abated. It is not enough to find that an injury or illness is only possible. Indicating that the occurrence of an injury or illness was "unlikely," or that there was "no likelihood" of occurrence is not consistent with designating a violation as "significant and substantial."

b. Seriousness of the Injury or Illness. The inspector shall evaluate the nature of the injury or illness associated with a violation. This evaluation will be difficult in some instances. The important factor is that the injury or illness, were it to occur, would be a reasonably serious one in the inspector's judgment. All of the factors relied upon to make this judgment shall be included in the inspector's notes. In addition, the information provided on the Inspector's Evaluation Section should be consistent with the inspector's decision of whether the violation should be designated "significant and substantial."

Specifically, the Inspector's Evaluation Section must indicate the nature of the injury or illness associated with a violation in terms of one of four basic categories: no lost workdays, lost workdays or restricted duty, permanently disabling, or fatal. These categories are not conclusive in determining whether a violation is properly designated as "significant and substantial."

1) Generally, anticipating that the injury or illness would result in "no lost workdays" is not consistent with designating a violation as "significant and substantial." However, there may be instances where, in the inspector's judgment, the potential injury or illness would be reasonably serious, even though the affected miner may still be able to work in his or her normal occupation. Such a violation may be properly designated as "significant and substantial," if the inspector is able to

adequately support the judgment that the injury or illness associated with the violation would be a reasonably serious one.

2) Indicating that the injury or illness associated with the violation would result in "lost workdays or restricted duty" would be consistent with designating a violation as "significant and substantial." However, it is important that the inspector's notes and explanation adequately describe why the potential injury or illness would be a reasonably serious one.

3) Indicating that the injury or illness would be "permanently disabling or fatal" is clearly consistent with finding that a violation is "significant and substantial." However, the inspector's notes must still adequately describe why, in his or her judgment, the potential injury or illness would be "permanently disabling or fatal."

2. Violations Involving Health Standards. Violations involving mandatory health standards that limit exposure to, or require protection from, harmful airborne contaminants, toxic substances, or harmful physical agents would generally be designated as "significant and substantial." Non-compliance with this type of health standard involves a reasonable likelihood of injury or illness that will be reasonably serious. The proper use of personal protective equipment (PPE), however, should be taken into account, as well as any other evidence that miners were not exposed to the hazard posed by the excessive concentration of the harmful substance. Although the use of PPE may not constitute compliance with health standards that set an exposure limit, the proper use of PPE by the miners affected by the violation is relevant to determining whether any injury or illness is reasonably likely to occur. Therefore, under these circumstances, the inspector shall evaluate the effectiveness of the PPE. This evaluation should include consideration of whether the PPE has been properly selected, used, and maintained

to ensure that an adequate degree of protection is afforded to the miner.

Violations of mandatory health standards that do not involve a physical exposure-related health standard or are only technical violations generally will not satisfy the guidelines for designating a violation as "significant and substantial." For example, violations of 30 CFR 75.1712 through 75.1712-10 involving bathing, sanitary, and change facilities would not ordinarily be designated as "significant and substantial."

Although these standards are designed to promote the health of miners, they do not set an exposure-related limit or requirement for the health hazard being addressed. Consequently, without additional facts showing a reasonable likelihood of injury or illness of a reasonably serious nature, there is little basis for designating such violations as "significant and substantial." The same is true of violations under 30 CFR Parts 70, 71, or 90 that do not involve a violation of the applicable respirable dust standard, but instead involve failure to take samples. For this type of violation, there generally will be little or no support for finding that an injury or illness was reasonably likely and serious unless there is evidence that the permissible concentration of respirable dust was exceeded.

D. Section 104(d) - Unwarrantable Failure Findings. For initial guidance on unwarrantable failures please refer to Program Policy Manual, Volume I, Section 104(d). To issue a citation under Section 104(d)(1) of the Mine Act, the inspector must find or determine during any type of inspection that:

1. There has been a violation of a mandatory health or safety standard.

2. The violation does not cause an imminent danger and is not incorporated into an imminent danger order.

3. The violation could significantly and substantially contribute to the cause and effect of a mine safety or health hazard.

4. The violation is caused by an unwarrantable failure of the operator to comply with such mandatory standard. The inspector shall include such finding in any citation given to the operator under the Mine Act. It is mandatory that an inspector making such a finding issue a citation charging the operator with unwarrantable failure under Section 104 (d)(1) of the Mine Act.

Numbers 1 and 2 above are self-explanatory. An interpretation of Number 3 was given previously in Section C of this chapter, and an interpretation of Number 4 follows.

Number 4 requires that for citations issued under Section 104(d)(1), "the violation is caused by an unwarrantable failure to comply with such mandatory standard." The violation is caused by an unwarrantable failure if the operator has engaged in "aggravated conduct constituting more than ordinary negligence." Violations caused by a high degree of operator negligence or reckless disregard should continue to be evaluated by inspectors for findings of unwarrantable failure to comply. For instance, if the operator knew or should have known of the existence of a hazard, disregard of or failure to address and correct the hazard may constitute more than ordinary negligence. These circumstances would justify an unwarrantable failure finding. However, evidence of moderate negligence will generally not support unwarrantable failure findings.

E. Tracking System for Section 104(d)(1) Orders. The following steps shall be used to track Section 104(d) orders.

1. Identify all mines on the Section 104(d) order sequence.

2. Identify all areas of the mine subject to inspection during "AAA" inspections.

3. For all A, B, and C code activities, identify the specific areas of the mine that were examined; the date such examination occurred; and if any Section 104(d) orders were issued.

4. If no Section 104(d) orders were issued, record areas examined for all such inspections.

5. If a Section 104(d) order was issued, remove any reference to previous inspections without Section 104(d) orders, and start recording procedure over from the time the last Section 104(d) order was issued, not from the time of next inspection.

6. If all areas of the mine are inspected without a Section 104(d) order being issued, notify inspection personnel that the mine is removed from the unwarrantable sequence.

7. Maintain a permanent copy of the tracking log in the event it is required to prove that a clean inspection did not occur.

F. Unwarrantable Procedure Sequence. Regardless of how many inspectors participate in an inspection and regardless of the number of special inspections being conducted concurrently with an inspection of the entire mine, only one Section 104(d)(1) citation may be issued. Section 104(d)(1) orders will be issued for each additional unwarrantable failure violation until the inspection has been completed.

If an inspection of the entire mine is in progress when a Section 104(d)(1) citation is issued and special inspections (spot, 103(i), or 103(g) inspections, etc.) are made during the inspection of the entire mine, only Section 104(d)(1) orders can be issued for unwarrantable failure violations observed during the special inspections. The special inspections will not be considered subsequent inspections for the purpose of Section 104(d)(2) until the inspection of the entire mine (regular inspection) is completed.
After a Section 104(d)(1) order has been issued, the 90-day period has no further effect or application. A Section 104(d)(1) order will be issued for all other unwarrantable failure violations observed during the same inspection in which the first Section 104(d)(1) order was issued.

Section 104(d) citations and orders can be issued only for violations of the following mandatory health and safety standards:

- Titles II and III of the Mine Act; and

- 30 CFR Parts 48, 49, 70, 71, 75, 77, and 90.

The following are not mandatory health and safety standards:

- Title I of the Mine Act;
- 30 CFR Parts 40, 41, 43, 44, 45, 50 and 74; and
- 42 CFR Part 37.

Use the following examples as guides to determine which type of action to take under Section 104(d)(1):

1. During an inspection, the inspector observes a violation that meets Section 104(d)(1) criteria. A Section 104(d)(1) citation has not been issued within 90 days, nor has any action been taken under Section 104(d) since a "clean" inspection of the entire mine was made. In this situation, issue a Section 104(d)(1) citation.

2. During an earlier inspection, an inspector had observed one unwarrantable failure violation and issued a Section 104(d)(1) citation. A Section 104(d)(1) order has not been issued since the Section 104(d)(1) citation was issued, nor has action been taken under Section 104(d) during the subsequent inspections made more than 90 days from the issuance of the Section 104(d)(1) citation. If the inspector again observes a violation that meets the Section 104(d)(1) criteria, then issue a Section 104(d)(1) citation.

When it is determined that one of the following situations exist, the inspector must issue an order under Section 104(d)(1):

3. During an inspection, an inspector has issued a Section 104(d)(1) citation. During the same inspection or subsequent inspection made within 90 days of the issuance of the citation, an unwarrantable failure violation of a mandatory health or safety standard is observed. A Section 104(d)(1) order must be issued for this violation and for all subsequent unwarrantable failure violations observed during the same inspection in which the first Section 104(d)(1) order was issued.

4. A Section 104(d(1) citation has been issued. One or more regular inspections of the mine have been made during which no unwarrantable failure violation was observed. However, another inspection was made within 90 days of the issuance of the Section 104(d)(1) citation, and during this inspection an unwarrantable failure violation of a mandatory health or safety standard was observed. A Section 104(d)(1) order shall be issued and reference must be made to the Section 104(d)(1) citation initiating the 104(d) order. No consideration need be given as to whether or not the violation is "significant and substantial." (See Chapter 8, Section XIV.)

G. Section 104(d)(2) Order - Subsequent Inspections. If an unwarrantable failure violation is observed during any subsequent inspection made after a Section 104(d)(1) order has been issued, the inspector shall issue a Section 104(d)(2) order. All unwarrantable failure violations observed, thereafter, will also be issued as Section 104(d)(2) orders until a "clean" inspection of the entire mine has been accomplished. A "clean" inspection is one in which no unwarrantable failure violations are observed by the inspector once the mine has been inspected in its entirety through any combination of regular and spot inspections.

As with a Section 104(d)(1) order, there is no requirement that the violation be "significant and substantial," only that the violation be due to an unwarrantable failure.

H. Section 104(e) - Pattern of Violations. On October 1, 1990, regulations to identify mine operators who meet the criteria for a Pattern of Violations as outlined in 30 CFR Part 104 became effective. Refer to Volume III, Section 104 Pattern of Violations, of the Program Policy Manual for procedures related to screening mines for a possible pattern of violations.

I. Section 104(g)(1) Order - Untrained Miners. Section 104(g)(1) of the Mine Act provides for the withdrawal of untrained miners from the mine until they receive the minimum training required by Section 115 of the Mine Act and 30 CFR Part 48. The purpose of a Section 104(g)(1) order is to eliminate the hazard that untrained or inadequately trained miners pose to themselves and others.

Sections 48.5, 48.6, 48.7, 48.8, and 48.11 are the only sections of Subpart A that may be cited under Section 104(g) for untrained miner violations occurring at underground mines. Sections 48.25, 48.26, 48.27, 48.28, and 48.31 are the only sections of Subpart B that may be cited under Section 104(g) for untrained miner violations occurring at surface mines and surface areas of underground mines.

Citations are not to be issued in lieu of Section 104(g)(1) orders, unless the miner cannot be trained. For example, the miner is no longer employed at the mine or the miner was fatally injured.

When miners have been trained, but there are, for example, violations involving training plans, cooperative training programs, records of training, compensation for training, or untimely training, an order of withdrawal is inappropriate.

Use the following guidelines to determine the number and type of citations or orders to issue.

1. Violations Involving More than One Miner. When more than one untrained miner is to be withdrawn from a mine, a single Section 104(g)(1) order is appropriate, if the training violation is the same for all of the miners. Where multiple miners are involved and different violations of the training requirements have occurred, separate orders of withdrawal must be issued. For example, if eight different underground miners did not receive required safety training (three did not receive new miner training, two were not task trained, and three missed annual refresher training), issue three separate Section 104(g)(1) orders, one citing 30 CFR 48.5, one citing 30 CFR 48.7, and one citing 30 CFR 48.8. If all eight miners missed annual refresher training, issue a single Section 104(g)(1) order. When more than one miner is involved in a violation of the same standard, list each miner's name in Item 15, "Area or Equipment," on MSHA Form 7000-3. Also enter the total number of miners involved in Item 10-D, "Gravity-Number of Persons Affected," in the inspector's evaluation section. Section 104(g)(1) orders that include more than one miner may be modified to allow individual miners to return to work if they do not all complete the required training at the same time.

2. Violations Involving Only One Miner. If only one miner is involved but two or more sections of Part 48 have been violated, write the violations under one order. For example, one underground miner was not task trained and also missed annual refresher training. Issue one Section 104(g)(1) order citing 30 CFR 48.7 and 30 CFR 48.8. Make two violation evaluations, one to evaluate the task training violation and one to evaluate the annual refresher violation.

3. Violations Involving Employees of Independent Contractors. Issue an order under Section 104(g)(1) of the Mine Act to the direct employer of any miner who has not received the required training. Care should be taken when issuing a Section 104(g)(1) order to an independent contractor when several contractors or subcontractors are present at the mine. If uncertainty exists as to who the direct employer is, issue the order to the operator with the greatest physical presence at the mine. Any discrepancies that may arise after the miner has been withdrawn may be resolved through subsequent modification action.

   Independent contractors may comply with Part 48 requirements by either making arrangements to have their employees trained under an existing approved training plan and program, or by filing and adopting their own approved training plan.

   Citations shall not be issued in conjunction with Section 104(g)(1) orders for the same violation except in instances of overlapping compliance responsibility. This overlapping compliance responsibility means that there may be circumstances in which it is appropriate to issue citations or orders to both the independent contractor and the production operator. For instance, if an untrained miner was the employee of an independent contractor and the production operator had agreed to provide the training in accordance with the mine's approved training plan but failed to do so, a Section 104(g)(1) order would be issued to the independent contractor to withdraw the untrained miner and a citation under Section 104(a) or (d)(1) or an order under Section 104(d)(1) or (2), as appropriate, would be issued to the production operator.

X. Other Sections

A. Section 314(b) - Notice to Provide Safeguard(s). A notice to provide safeguard(s) shall be issued only under 30 CFR 75.1403. The regulation applies only to the transportation of miners and materials. A safeguard is issued for a specific condition that presents a hazard to miners involved in the transportation of workers or materials. A safeguard cannot be issued as a generic safeguard to all or a general class of miners. For example, a notice to provide safeguards cannot be issued to require a separate power circuit for an electric motor used to drive the fan.

All notices to provide safeguards should document either in the notice itself or in the inspector's notes that the inspector has evaluated the specific conditions at the particular mine and determined that a safeguard is warranted in order to address the transportation hazard identified. Notices to provide safeguards that have been in existence for several years should be reevaluated periodically to verify that the hazards which provided the basis for the issuance of the notice still exist, or whether the safeguard notice should be modified or terminated.

Issue the notice to provide safeguards on MSHA Form 7000-3. To terminate the notice, the inspector may use MSHA Form 7000-3a or the space provided at the bottom of the form on which the original notice was written.

Use MSHA Form 7000-3a to grant an extension of time to abate a condition or practice cited in the notice to provide safeguards. However, if an extension of time should not be given and the hazard has not been eliminated, issue a Section 104(a) citation. When a Section 104(a) citation is issued the safeguard must be identified on MSHA Form 7000-3. Further, any future Section 104(a) or (d) citations/orders on a condition covered by the safeguard must reference the original safeguard.

When possible, the inspector should confer with the District Manager or Subdistrict/Assistant District Manager prior to writing a notice to provide safeguards for conditions not listed in the criteria at 30 CFR 75.1403-1 through 75.1403-11 or in one of the inspection handbooks.

B. Title I of the Mine Act. When a violation of any provision of Title I of the Mine Act (General) occurs

at a mine, or when an investigation reveals that a Title I violation exists, issue one or more citations on MSHA Form 7000-3. Check the box in front of "Citation" on Form 7000-3, and enter the type of action as "104(a)." The citation should state specifically when, where, and how the violation occurred, as appropriate, and include a detailed description of the condition(s) or practices(s). A violation of Title I of the Mine Act, including the inspector's assessment, should be handled the same as any violation of Titles II and III of the Mine Act (mandatory health and safety standards).

C. Section 317(c) - Smoking Articles. When a citation is issued to an individual for smoking or for carrying smokers' articles in areas prohibited by Section 317(c) of the Mine Act or 30 CFR 75.1702, follow the same procedures for issuing citations to an operator, except for the sequence of the copies. The original shall be retained by the inspector. The first carbon copy shall be given to the person violating the statutory provision. The third and fourth copies shall be given to the operator, who must post one of the copies on the bulletin board in accordance with Section 109(a) of the Mine Act. Upon returning to the MSHA office, a copy of the citation or order should be made for the inspector's records.

XI. Sealed and Abandoned Mines or Areas

A. Opening Sealed Areas Covered by an Order. If an imminent danger order is issued, and the mine or any portion thereof is subsequently sealed because of the imminent danger, issue another imminent danger order prohibiting the operator from opening such seals.

Termination of the second order shall not terminate the imminent danger order covering the condition that required the sealing of the mine.

B. Citations, Orders, and Safeguards at Abandoned Mines. When a mine has been temporarily abandoned and citations for violations have not been totally abated at the time of abandonment, issue a separate Section 104(b) order, as applicable, for each violation.

"Applicable" is interpreted to mean that the cited condition remains underground after abandonment of the mine. For example, if "inadequately supported roof or

accumulations of loose coal and coal dust" are observed, issue an order for each violation.

If the cited conditions were removed from the mine prior to abandonment of the mine, each cited condition shall be considered abated; for example, "excessive splices in a trailing cable" and the trailing cable was removed from the mine, or "the chain drive not adequately guarded" and the drive was removed from the mine.

When a mine has been permanently abandoned and the openings sealed, terminate the Section 104(b) orders. The above procedures also apply to Section 104(d) and (e) orders. Terminate notices to provide safeguard(s) that have not been abated on the date the mine is permanently abandoned.

When a mine has been abandoned or declared inactive by the operator, a safety and health inspection of the entire mine must be conducted in accordance with 30 CFR 75.373 before mining operations can be resumed. Procedures to be followed are described more fully in this handbook in Chapter 3, Section II.D, Abandoned or Inactive Mines Before Mining Operations Commence.

C. Orders on Worked Out Areas. Where mining has been discontinued in an area as a result of an order or after an order was issued, the operator of the mine involved shall notify MSHA that mining has been discontinued in the area affected by the order and that the area is permanently abandoned. When such an area of the mine is sealed, terminate the orders.

Chapter 6 - Rescue and Recovery Procedures

I. Mine Emergency Procedures

A. Dispatching MSHA Personnel and Emergency Equipment to Mine Site. Upon notification of an emergency, the District Manager or other designated district official shall immediately dispatch appropriate duly authorized representatives to the mine site.

B. Initial On-Site Procedures. The first MSHA personnel arriving at a mine after notification of a mine emergency shall initiate the following actions:

1. Issue the appropriate Orders of Withdrawal necessary to ensure the health and safety of the miners.

2. Obtain the following information and promptly report it to the District or Subdistrict Office:

   a. Are miners entrapped? Have they been communicated with?

   b. What is the nature and location of the emergency?

   c. Have mine rescue teams been alerted?

   d. Have firefighting or rescue and recovery operations started?

   e. Are the surface mine fans still operating?

   f. Is mine emergency assistance needed from the Office of Technical Support?

   g. Are MSHA's Mine Emergency Units needed?

3. Advise company officials that persons in contact with miners underground should determine if the miners are familiar with the emergency escapeway routes and the emergency evacuation procedures in effect at the mine. If the miners are not familiar with the routes and procedures, instructions or directions to the nearest escape route should be given.

4. Advise company officials to have the surface fans examined to determine their condition. If a fan

is not operating, it should remain off until examinations are made and it is determined that the fan should be restarted. All responsible agencies and company officials should be consulted before restarting a fan.

5. Advise company officials to have an attendant assigned to each operating surface fan to ensure continued operation.

6. Advise company officials to have qualified persons make carbon monoxide and methane tests at each exhausting surface fan and keep a log of the results obtained.

7. Notify officials at interconnected mines of the emergency and inform them that you are issuing them a verbal order of withdrawal.

8. Advise company officials to establish police lines to restrict entrance to mine property except to authorized personnel and to assign guards for the entrances to each mine opening.

9. Determine whether power is on in the mine and in what areas. Mine power available outside of the affected area should be used for transporting mine personnel to the surface and for transporting firefighting and recovery personnel and supplies to the affected area.

10. Advise company officials to have power disconnected from the affected area, unless the power is needed to transport personnel to safety or for rescue/recovery operations. If power is needed to transport personnel to safety, power should be removed upon evacuation or retreat, unless it is needed for rescue and recovery operations. Also, advise company officials to have power switches locked out or attended by a qualified person.

11. Advise company officials to have a positive check-in and check-out system in addition to the one established at the mine. Each person going in and out of the mine shall sign in and out.

12. Advise company officials to implement a search program, in conjunction with the check-in and check-out system, to ensure that any person enter-

ing the underground area of the mine does not carry smoking materials, matches, or lighters.

13. Advise company officials to alert mine rescue teams, doctors, and hospitals, if needed.

14. Advise company officials that current mine maps or prints will be needed.

15. If another MSHA employee is not present at the mine, request company officials to assign someone on the surface to maintain a log of all rescue and recovery activities. As soon as another MSHA employee is available, he or she shall be assigned to maintain a separate log for MSHA.

16. After the above surface tasks have been completed, proceed underground, if this can be done safely, monitor the firefighting and recovery operations, and look for additional information and causes. If two MSHA personnel are dispatched to the emergency site, one may proceed directly underground, if this can be done safely.

17. Relay all pertinent information to an MSHA person on the surface who shall relay this information to the Subdistrict and/or District Office.

18. Upon arrival underground, check returns for methane, carbon monoxide, and other gasses if this can be done safely and advise company officials to assign persons to continuously sample the returns and report the results.

19. All MSHA personnel shall keep complete notes on all activities performed in their work assignments. All such notes shall be submitted to the District Manager or other designated District official.

20. Report all gas readings and mine conditions to the MSHA person in charge of the log, and keep a record of time, location, and gas readings in a notebook. Make sure that the gas detecting devices are accurate.

II. Section 103(j) and 103(k)

During the investigation of most accident scenes, the issuance of a Section 103(k) order is usually appropriate, even though rescue and recovery operations are underway.

In the event of a mine accident where rescue and recovery work is necessary, Section 103(j) of the Act grants the authorized representative broad authority to take whatever action, including the issuance of orders, that the representative deems appropriate to protect the life of any person. Where appropriate, the authorized representative may supervise and direct the rescue and recovery activity.

Immediately upon arrival at the mine accident scene, or later as mine rescue operations develop, the authorized representative may determine that direct control, either entirely or partially, is necessary, particularly in situations where a less hazardous rescue procedure is desirable, instead of the procedure intended for use. Because of this broad authority, discretion and good judgment on the part of the authorized representative are imperative.

The term "accident" is defined in 30 CFR 50.2(h). Generally, the inspector will not use the authority under Section 103(j), but will instead use Section 103(k). Under Section 103(k) of the Act, the inspector can issue such orders, including a Section 107(a) order if an imminent danger is found, as deemed appropriate to ensure the safety of any person. Again, it is important to emphasize that the inspector must exercise discretion and good judgement when issuing a 103(k) order and the following instructions are provided to assist in exercising this discretion[24]:

A. The dangers to miners are obvious where a fire, explosion, or inundation has occurred in any underground mine, and the Section 103(k) order shall address the safety of the miners in the entire underground portion of the mine.

B. In instances where any accident has resulted in death or serious injury to a miner, if the inspector believes that the hazardous condition or practice causing that accident is likely to exist elsewhere at the mine the Section 103(k) order shall include all such areas of the mine. In some instances it will be obvious that the conditions are peculiar to the accident site, and therefore the Section 103(k) order would not apply to areas other than the accident site.

C. The Section 103(k) order should remain in effect until a systematic evaluation of the conditions and safety practices is conducted, and a determination is made that hazards similar to those that caused or contributed to the accident have been eliminated. The evaluation can be made prior to the accident investigation or concurrent with it. After this evaluation and determination have been made, the Section 103(k) order may be modified to permit an area of the mine to resume operations, or terminated if appropriate, provided that such action will not pose a hazard to the miners.

D. In addition, Section 103(k) requires the operator to obtain the authorized representative's approval of any plan to recover any person in a mine, to recover the mine, or to return affected areas of the mine to normal.

Notwithstanding the above, when during rescue and recovery work it is determined by the authorized representative that an order is appropriate to protect the life of any person, or that supervision and direction of rescue and recovery activities is appropriate, a Section 103(j) order shall be issued to the operator. When possible, the inspector should contact the District Manager or Subdistrict/ Assistant District Manager prior to issuing a Section 103(j) order.

It is not necessary or proper to issue a Section 103(j) order solely to preserve evidence, since the operator is required to preserve evidence under Section 103(j) and under 30 CFR 50.12. In such a situation, the operator should be cited under 30 CFR Part 50.12.

An inspector, when present at the mine following an accident, may immediately determine that rescue and recovery work is necessary. In such a situation, the Section 103(k) order issued under this section will generally be appropriate.

III. Orders to Ensure the Safety of Any Person

In the event of an accident, the inspector is granted authority to issue orders that are deemed appropriate to ensure the safety of any person in a coal mine. Generally, the inspector will use Section 103(k) instead of Section 103(j) because the order is to ensure the safety of all persons, and not for rescue and recovery operations, even though in some instances the recovery of persons will be in

progress at the time the Section 103(k) order is being issued.

Generally, the District Manager or Subdistrict/Assistant District Manager will determine which accidents will be investigated. Section 103(j) or 103(k) orders are not required for all accident investigations. The issuance of a Section 103(k) order does not prohibit the issuance of appropriate citations and orders under Sections 104 and 107.

The issuance of a Section 103(k) order is to be distinguished from an order issued under Sections 104 and 107 of the Act. The orders have different statutory bases and criteria and should be considered independently. Section 107(a) contains an exception to the withdrawal of persons, described in Sections 104(c), which is not found in Section 103(k). There may be circumstances where even those persons described in Section 104(c) should be prohibited from entry into the area of the mine. Section 103(k) requires only that the authorized representative be "present."

Before or after the issuance of a Section 103(k) order, if the inspector determines that an imminent danger exists, he or she shall issue a Section 107(a) order.

IV. Restrictions on Team Members

MSHA will not permit teams that use self-contained breathing apparatus with full face pieces to proceed inby the fresh air base if any member of the team has a beard or long sideburns. Nor will MSHA permit mine rescue teams that use self-contained breathing apparatus with mouthpieces to proceed inby the fresh air if, in MSHA's opinion, any member of the team has a mustache and/or a beard that interferes with the proper seal of the mouthpiece.

Chapter 7 - Interagency Agreements

Several interagency agreements exist that facilitate the efficient use of government personnel and directly affect the conduct of business by MSHA.

I. Bureau of Alcohol, Tobacco, and Firearms (ATF)

An agreement between the Department of the Treasury and DOL provides that MSHA will make inspections of explosives storage facilities when the applicant is subject to the jurisdiction of MSHA. MSHA inspectors will also conduct compliance inspections in regard to storage and record-keeping requirements of licensees and permittees under their jurisdiction, as well as compliance inspections in regard to storage requirements for all operators (nonlicensee and nonpermittee) under their jurisdiction who use and store explosive materials. A copy of this agreement is available in every field office and should be studied by all inspectors.

When the operator applies for a license or permit from ATF, ATF personnel should inspect mine storage facilities on mine property to ensure compliance with regulations before issuing licenses and permits.

MSHA inspectors should conduct compliance inspections of explosives storage facilities on mine property during each regular safety and health inspection to determine if the facilities meet or exceed the requirements of the Commerce in Explosives regulations (27 CFR Part 55, Subpart K - Storage). The inspector shall:

A. Inspect storage facilities where explosive materials are stored;

B. Inspect records of licensees and permittees under MSHA jurisdiction;

C. Report each compliance inspection to the ATF Regional Regulatory Administrator; and

Document a violation or noncompliance on ATF Form F 5030.5, Report of Violations, and give the original to the licensee, permittee or operator. The inspector shall make a "recall" inspection on a scheduled date, when necessary, and complete Part II of Form F 5030.5 at that time. If a second "recall" inspection is necessary, the inspector will complete Part III of Form F 5030.5. All copies of ATF Form F 5030.5 shall be for-

warded to the District Manager who will retain a copy and forward the remaining two copies to the appropriate ATF regional office. A report showing no violations may be on any appropriate form, provided the name, address, and license or permit number, if any, of the proprietor and the date of inspection are shown. Attach the completed form to the mine inspection report.

E. Issue a citation/order and document the action on the ATF F Form 5030.5, if a condition is a violation of both 30 CFR and 27 CFR. Refer to Chapter 8, Section VII, of this handbook for instructions on completing the ATF form.

For further reference, consult ATF P 5400.7 (11/82), "ATF: Explosives Law and Regulations" and 27 CFR Part 55, "Commerce in Explosives."

II. Occupational Safety and Health Administration (OSHA)

A copy of the MSHA/OSHA Interagency Agreement is available in every field office. Inspection personnel should be familiar with the agreement. Should a question on jurisdiction develop, refer to MSHA's Program Policy Manual, Volume I, Section 4. If additional guidance is needed, the matter should be documented and brought to the attention of the District Manager.

III. Federal Railroad Administration (FRA)[25]

On numerous occasions concern has been expressed about conditions of railroad trackbed and equipment at mining operations, and railroad companies delivering cars in poor condition to mines. Consequently, liaison procedures were established with the FRA, and the issue of ownership of track on mine property was addressed.

MSHA's FRA liaison officer at headquarters is Lawrence M. Beeman, Chief, Technical Compliance and Investigation Division, Coal Mine Safety and Health, (703) 235-1920. His office may be contacted regarding questions or issues related to railroad equipment.

MSHA field personnel should report unsafe conditions involving railroad equipment owned by a railroad company (including trackbed, railroad cars, or other equipment) to MSHA's liaison officer at headquarters, and provide him with the appropriate mine information, name of railroad company, the conditions or circumstances which are deemed unsafe, and

any other relevant information. These unsafe conditions will be discussed with the Federal Railroad Administration (FRA) liaison officer at headquarters and referred to FRA's field staff for prompt investigation. If the unsafe trackbed, railroad cars, or equipment owned by the railroad company presents an imminent danger, a Section 107(a) imminent danger withdrawal order, with no underlying violation, should also be issued to the mine operator, requiring that the mine operator's employees be removed from the unsafe area.

FRA will provide MSHA with the results of the investigation and actions taken, including any action necessary by the railroad to repair the track or equipment in question.

If the above procedures have been followed and the hazard continues to exist, an appropriate citation or order may be issued to the railroad company requiring that the unsafe condition be corrected. The inspector should ensure that MSHA has jurisdiction over the unsafe equipment, i.e., the equipment is located on mine property.

When the mining company owns the railroad trackbed, railroad cars, or other equipment and any of these have deteriorated to the point of being unsafe, an appropriate citation or order must be issued to the mine operator. If warranted, a Section 107(a) imminent danger withdrawal order should also be issued to the mining company.

Chapter 8 - Recordkeeping and Forms

This chapter discusses the authorized activity codes used by inspection personnel. Included are copies of the forms required to be filled out; instructions for completing the forms; the codes assigned to each union, association, and corporation; and examples of different citations and orders.

I. Authorized Activity Codes

Authorized activity codes are located on the reverse side of the Weekly Time and Activity Data (MSHA Form 2000-60). The activity code is entered on the input forms listed below and is also listed as "type of inspection" on the mine citation forms.

- Mine Activity Data (MSHA Form 2000-22 - Section III of this chapter).
- Mine Status Data (MSHA Form 2000-122 - Section III of this chapter).
- Mine Citation/Order (MSHA Form 7000-3 - Section IV of this chapter).
- Mine Citation/Order Continuation (MSHA Form 7000-a - Section V of this chapter).
- Weekly Time and Activity Data (MSHA Form 2000-60 - Section XII of the chapter).

Category A - Mandatory Inspections and Investigations

Code	Description
AAA	Safety and Health Inspection of an entire mine, surface facility, or other entity with a separate ID number (includes ATF inspections).
AAB	Safety and Health (Saturation) Inspection of an entire mine, surface facility, or other entity with a separate ID number by a team of inspectors (includes ATF inspections).
ABA	Safety and Health 103(i) Spot (Ignition or Explosion) Inspection of a mine classified as having had an ignition or explosion which resulted

in death or serious injury within the past 5 years.

ABB Safety and Health 103(i) Spot (Hazard) Inspection at a mine where there exists other especially hazardous conditions.

ABC Safety and Health 103(i) Spot (5-Day) Inspection at a mine that liberates more than one million cubic feet of methane or other explosive gases during a 24-hour period.

ABD Safety and Health 103(i) Spot (10-Day) Inspection at a mine that liberates more than 500,000 cubic feet, but less than one million cubic feet of methane or other explosive gases during a 24-hour period.

ABE Safety and Health 103(i) Spot (15-Day) Inspection at a mine that liberates more than 200,000 cubic feet, but less than 500,000 cubic feet, of methane or other explosive gases in a 24-hour period.

ACA Safety and Health (Reopening) Inspection of an entire mine when reopened after having been abandoned or declared inactive.

ADA Safety and Health 103(g) Spot Inspection resulting from a written request for a special inspection (other than an inspection under Code ADB).

ADB Safety and Health 103(g)(1) Spot Inspection resulting from a written request for a special inspection involving a safety or health dispute under the National Bituminous Coal Wage Agreement or Anthracite Wage Agreement.

AEA Safety and Health Toxic Substance or Harmful Physical Agent Technical Investigation of a reported problem or potential problem with any toxic substance or harmful physical agent.

AEB Safety and Health 101(c) Petition Technical Investigation pertaining to a request for modification of a mandatory safety standard.

AEC Safety and Health 101(d) Petition Technical Investigation of activities pertaining to a person who may be adversely affected by a mandatory health or safety standard promulgated under this section.

AFA Safety and Health Fatal Accident Investigation Includes time spent investigating natural deaths and other possible nonchargeable fatalities.

AFB Safety and Health Nonfatal Injury Accident Investigation

AFC Safety and Health Noninjury Accident Investigation

AFD Mine Emergency Operations - Include all rescue and recovery operations during mine emergencies. Also include time monitoring the mine environment during mine fires determined to be mine emergencies. Do not include time performing investigation activities.

AGA Safety and Health Special Investigatory Investigations

AGB Safety and Health Willful Violation Special Investigation of citations and orders when there is possible knowing or willful intent.

AGC Safety and Health Special Investigatory Discrimination Investigation of a complaint submitted to MSHA.

Category B - Policy Inspections and Investigations

Code	Description
BAA	Safety and Health Policy Ventilation Saturation Inspection of all or parts of a mine by a team of ventilation specialists and/or regular inspection personnel.
BAB	Safety and Health Policy Respirable Dust Technical Inspection of an underground mine where full-shift

samples are collected to evaluate the dust control plan.

BAC Safety and Health Policy Shaft, Slope or Major Construction Spot Inspection of a mine to determine whether an imminent danger exists and whether there is compliance with safety and health standards or any violations issued.

BAD Safety and Health Policy Code-A-Phone Spot Inspection of a mine resulting from a recorded complaint.

BAE Regular Safety and Health Policy Inspections of Shafts, Slopes and Major Construction Sites to determine whether there is compliance with mandatory safety and health standards.

BAF Safety and Health Policy Respirable Dust Technical Inspection of a surface mine, surface work areas of underground mines, and other surface facilities, where full shift respirable dust samples are collected to evaluate the work environment of a surface miner.

BBA Safety and Health Policy Electrical Investigation of a mine including an indepth study of any electrical components and/or systems. Includes field changes on electrical face equipment, electrical activities prior to opening a new mine or the reopening of an inactive or abandoned mine, trolley surveys, circuit breaker studies, ground monitor checks and other special electrical investigations.

BBB Safety and Health Policy Noise Technical Investigation of the mine operator's noise program, including all supplemental noise level surveys.

BBC Safety and Health Policy Special Investigatory Investigations consisting of follow-up investigative activities requested by Office of the Solicitor.

BBD Safety and Health Policy Mine Profile Investigation of a mine auditing the profile rating system guidelines.

BBE Safety and Health Policy Alcohol, Tobacco and Firearms (ATF) Investigation of a mine to ensure Treasury Department ATF compliance or to identify any problems where it is suspected that explosives are involved. (NOTE: Routine inspections of explosives facilities shall not be included under this event, but should be included in AAA or AAB events.)

BBF Part 50 Audit of a mine's accident, injury, illness, and employment records. Includes all activity in pursuit of the audit.

Category C - Auxiliary Inspections and Investigations

Code	**Descriptions**
CAA	Safety and Health Spot Inspection of a mine to determine whether an imminent danger exists, and whether there is compliance with safety and health standards or with any violation issued (including follow-up HAAP inspections).
CAB	Safety and Health (Saturation) Spot Inspection of a mine conducted by a team of inspectors of an area or areas at a problem mine, or other mines so designated by the District or Assistant District Manager.
CBA	Safety and Health Electrical Inspection of an entire mine, surface facility, or other entity with a separate I.D. number.
CBB	Safety and Health (Saturation) Electrical Inspection conducted by a team of inspectors of an area or areas of a mine.
CBC	Safety and Health Electrical Spot Inspection of a mine's electrical system.
CBD	Respirable Dust Monitoring Inspection - Time spent monitoring the operator=s respirable dust sampling

program. (Normally used in conjunction with a major inspection, i.e. AAA)

CBE Respirable Dust Spot Inspection - Time spent gathering information and conducting an inspection relating to an audit of the Respirable Dust Control Program.

CCA Safety and Health Roof Control Technical Inspection conducted by a specialist for plan evaluation and compliance of roof conditions.

CCB Safety and Health Haulage Technical Inspection of a mine's haulage system.

CCC Safety and Health Ventilation Technical Inspection made by a specialist of a small or large area of a mine. All inspections for ventilation plan evaluations and compliance conducted by a specialist.

CCD Safety and Health Noise Technical Inspection of a mine's noise plan.

CCE Safety and Health Water Sediment or Slurry Impoundment by a specialist.

CCF Safety and Health Waste Pile Technical Inspection by a specialist.

CDA Safety and Health Roof Control Spot Inspection of a mine's roof conditions includes mine visits made in connection with the REAP program.

CDB Accident Prevention Spot Inspection performed by an AR includes accident prevention programs such as NFDL programs, industry supervisory training, ventilation awareness, walk and talk activities, etc. It does not include mine visits for the REAP program.

CEA Safety and Health Roof Control Technical Investigation of a mine including engineering and in-depth studies of roof problems or potential roof problems, roof control surveys, and pull tests.

CEB Safety and Health Haulage Technical Investigation including haulage activities such as surveys and clearance waivers.

CEC Safety and Health Ventilation Technical Investigation of a mine with detailed engineering studies of current or potential problems, surveys, and waiver requests.

CED Safety and Health Respirable Dust Technical Investigation of an operator's sampling program where samples may or may not be collected. Includes investigation of Part 90 miners and their occupations.

CEE Safety and Health Free Silica Technical Investigations dictating additional respirable dust samples for further analysis.

CEF Other Safety and Health Technical Investigation is an investigation not described by any other code.

CFA Safety and Health Mine Idle Activity is an attempted inspection but mine is idle.

CFB Safety and Health ADP Contact Activity is a mine visit initiated by an ADP violation generated from the operator's respirable dust sampling program.

CFC Other Contacts - Includes technical assistance visits for plan evaluations and other contacts not classified by one of the codes in this schedule. These are office visits, not mine inspections or investigations.

Category D - Enforcement Activities Not on Mine Property

Code	Descriptions
DAA	Investigative Case Review - Time spent in an MSHA office reviewing reports of investigations conducted by a subordinate organization.
DEB	Plan Approvals and Reviews - Time spent in an MSHA office reviewing and approving plans. Excluded are roof control and ventilation plans.

DEC Roof Control Plan Approvals and Reviews - Time spent in an MSHA office reviewing and approving roof control plans.

DED Ventilation Plan Approvals and Reviews - Time spent in an MSHA office reviewing and approving ventilation plans.

DFA Investigation of Complaint - Time spent in preliminary inquiry into Section 110 cases or other cases not involving a mining company.

DGA Computer Generated Dust Violation (Office) - All time associated with a computer generated dust violation not coded under an A, B, or C code.

DGB Computer Generated Noise Violations - All time associated with a computer generated noise violation not coded under an A, B, or C code.

DGC Other Office Generated Violation Activity - All time associated with office generated violations, other than DGA and DGB activities, not coded under an A, B, or C code.

DHA Technical Assistance to Industry/Union Personnel or other Interested Parties - All time associated with providing technical assistance to company or union personnel or other interested parties. Do not include plan approval or review activities.

Category E - Education and Training

Code	**Descriptions**
EAB	Training Plan Approval and Revisions (Office) All office activities regarding the initial approval or revision of training plans.
EAC	Training Plan Approval and Revisions (Field) All field activities regarding the initial approval or revision of training plans.
EAP	Compliance Analysis Program (Field) - Include all time while working in a non-AR capacity as a Compliance Analyst.

EBB Instructor Training Conducted - All activities regarding training of MSHA-approved instructors. Include all time spent in preparation and all classroom time. Include mine rescue instructor training and first aid instructor training.

EBC Instructor Approval - All activities, other than training instructors, required to produce approved instructors.

ECA Informational Meetings, Seminars and Training Classes - All activities related to training, demonstrations, meetings and seminars for industry personnel, except instructor and certification and qualification activities.

EDA Instructing Mine Rescue and First Aid - All activities, except mine rescue and first aid instructor training, related to mine rescue and first aid training, including team training, judges training, etc.

EGA Evaluating Cooperative Instructors - All time spent evaluating cooperative instructors in the field or in the office.

EHA Qualification and Certification - All activities related to qualifying and certifying persons. Includes noise, dust, methane, oxygen deficiency, impoundments, electrical, etc.

EJA NFDL, Accident Reduction and Prevention Programs (Field) - All activities in the field related to the NFDL, accident reduction and accident prevention programs. Include office time when specific to a targeted mine.

EKA Health and Safety Contacts (Field) - Interviewing, observing, safety talks, barrier analysis, providing health and safety materials, etc., performed on site by education and training specialists at mines not on the NFDL, Accident Reduction Program. Also includes formal walk and talk activities performed by specialists and inspectors at all mines including NFDL mines, but does not include REAP activities.

ELA On-Site Training Program Evaluation (Field) - All field activities related to evaluating MSHA approved instructors, training plans, course content, task outline (JSAs, SWIs, etc.), 5000-23 forms, records of certified and qualified persons, learning environment, etc., not conducted as part of an EJA event.

EMA Holmes Safety Association (Assistance to Chapter/Councils) - All activities of HSA chapters. Include all time spent in forming and operating HSA chapters or councils, preparing for and making presentations at meetings and time involving Joseph A. Holmes Awards.

ENA State Grants Assistance and State Plans - Includes time spent attending State Grants meetings and meetings with state and headquarters personnel on State Grant assistance and plans.

EYA Other Education and Training Field Activities - Includes work on accident reduction and accident prevention programs that are not mine specific, and other activities to provide assistance to the mining community that are not coded as an E&T event or another E-category code, and are conducted at locations other than MSHA offices.

EZA Other Education and Training Office Activities - Includes work on accident reduction and accident prevention programs that are not mine specific and other activities to provide assistance to the mining community that are not coded as an E&T event or another E-category code.

Category F - Miscellaneous

Code	**Descriptions**
FAA	Supervisory Duties (Office) - All supervisory related duties in an MSHA office.
FBA	Supervisory Duties (Field) - All supervisory duties in the field.

FED National Committee Meetings and Assignments - Includes time spent attending committee meetings at the national levels and assignments from Headquarters, such as the development or revisions of standards and/or regulations.

FEE Internal Audits - Time spent on auditing and evaluating District or Field Offices, including work under MSHA's Accountability Program.

FEF Review of Directives, Regulations, Decisions, or Accident Reports - Time spent reviewing Agency policy, procedure and information directives; reviewing regulations and ALJ, Commission, or Court of Appeals decisions; and reviewing MSHA accident reports. Time spent downloading MIS data, directives, or to update information on laptop computer. Do not include time spent reviewing regulations, policies, or procedures while in the process of conducting an inspection or investigation - such time should be credited to the event being conducted.

FGA Laboratory Duties - Nonsupervisory laboratory duties in an MSHA office, including the maintenance of inspection equipment.

FHA Official Union Duties - Personnel participating in official union duties, NCFLL.

FJA Legal Hearings/Documents - Personnel involved in legal hearings, MSHA hearings, or testifying in court.

FKA Staff Meetings - Personnel participating in staff meetings in or outside MSHA offices.

FKB Instructing MSHA Personnel in Training Classes - MSHA person instructing classes, information meetings, seminars, etc.

FKC Receiving Mine Rescue and First Aid Training - Personnel receiving training in mine rescue and first aid, including participation in contests.

FKD Training Received - Personnel receiving training other than mine rescue and first aid from both MSHA and outside sources.

FKE Inspector Trainees - Work activity of non-AR inspection personnel while in training. Includes time spent in classroom training and OJT training assignments, accompanying, observing and/or assisting AR on inspections/investigations while in the field or performing duties in the office.

FKF First-Aid/Mine Rescue Contests/MINE EMERGENCY RESPONSE DEVELOPMENT (MERD) - Include all time preparing for or participating in either the National or regional contests. Also includes time spent preparing for or participating in MERD exercises.

FLA Vehicle Maintenance - Includes errands involving transportation of vehicles.

FOA FOIA Requests/Congressional Inquiries - Include all time to research and respond to the inquiry.

FRA Medical Accommodation - On-the-job Injury Include all time charged by individuals who were injured or incapacitated on the job and are performing meaningful work for MSHA in a capacity that meets their physician=s prescribed limitations or restrictions. These assignments must be of limited duration.

FRB Medical Accommodation - Personal Injury - Include all time charged by individuals who were injured or incapacitated outside of Government time and are performing meaningful work for MSHA in a capacity that meets their physician=s prescribed limitations or restrictions. These assignments must be of limited duration.

FVA Violation Conference - All time spent on operator requested conferences related to cited violations of the Act/regulations and the subsequent assessment of civil penalties. These activities are not inspectors' closeout conferences.

FWA Special Assignment - Duties of temporary nature outside regularly assigned job related duties (e.g., meetings other than staff meetings, temporary duty assignments not covered by other codes).

FZA Other Activities - Time spent in any other activity not covered in the other F-coded activity descriptions.

Category G - Absence From Duty

Code	Description
GAA	Annual Leave
GBA	Administrative Leave
GCA	Compensatory Leave
GDA	Holiday
GEA	LWOP
GFA	AWOL
GGA	Military Leave
GHA	Sick Leave
GIA	OWCP
GJA	Court Leave/Jury Duty
GKA	Furlough (non-pay status)

Category T - Technical Compliance and Investigation Activities

Code	Description
TEA	Citation/Order Review - Time spent in review of citation/orders for possible willful violations of the Act.

II. Inspector's Notes

A. Notetaking Package. The notetaking package can be utilized for any type of inspection or investigation by using the cover sheet and pages applicable to that event. Coal Mine Safety and Health will provide three ring notebooks in two sizes, 8 1/2 x 11 and 3 1/2 x 7. As an inspector prepares for an inspection, the notebook will be assembled from pre-printed, loose leaf forms specific to the inspection to be performed.

1. A laminated page of notetaking requirements is provided in the beginning of the notebooks for inspector reference.

2. The general information sheet is to be used to document information common to any inspection or investigation activity and may be used in lieu of the daily activity sheet for single-day events.[26]

3. A pre-printed daily activity sheet is provided to document information required on a daily basis for multi-day events[26]. This form will begin each day's inspection activity and serve as a "cover sheet" for each day's activity.

4. Pre-printed lined pages and grid pages are provided for narrative and illustrative documentation and can be inserted into the notebook packet as needed.

5. Air reading sheets are provided for the calculation and documentation of air measurements taken during an inspection activity.

6. A page is provided to draw a line diagram showing the areas of a mine that were inspected. A mine map may be used in lieu of a line diagram.

7. Pre-printed sheets are provided to assist in documentation of respirable dust and noise inspections.

B. Instructions for Notetaking. The General Information Cover Sheet will be started on the first day of the inspection and completed with the post-inspection conference. Information for this sheet will be obtained from the Mine File Binder, the inspection event sheet, and from the mine site. On the first day of the on-site inspection, the inspector will document that a representative of the operator and a representative of the miners were contacted and afforded the opportunity to participate in the inspection. If participation is declined it should be noted. Space is provided for comments pertinent to the mine or the completed inspection. The beginning date will be the first day that any time is charged to the event.

The documentation of each day's inspection activity shall be started with the daily cover sheet. However, the general information cover sheet may be used in lieu of the daily activities sheet for single-day events[26]. The inspector shall date and initial each page of the notes. Each page shall be numbered sequentially each day, starting with the daily cover sheet as Page 1. The time of arrival at and departure from the mine are no longer required to be entered in the spaces provided on the daily cover sheet[26]. List record books that are checked. Serious hazards or unusual conditions shall be noted. Routine information does not need to be documented. If no hazards are recorded, listing the records that were checked will suffice. Identify the members of the inspection party in the spaces provided. The Areas of Inspection Activity space is provided for the inspector to identify all areas that are examined on the said date and begin narrative documentation of the day's inspection activity. Ruled pages and grid pages are provided for continuation of the inspection activity.

The inspection supervisor is no longer required to date and initial each page of notes reviewed.[26]

C. Maps, Plans, and Postings. A statement that all maps, plans, and postings were examined will suffice. This can be accomplished any time during the inspection.

D. Section Inspection.

1. Section Identification. Identify the section being inspected by MMU number, unit name, or location description.

2. Evidence of Examinations. If there are no violations relative to examinations, a statement such as "there were sufficient dates, times, and initials observed on the section to indicate that required examinations are being conducted" will suffice.

3. Evaluations of Air Quality and Mine Gases. The atmosphere will be evaluated for low O_2 content and methane concentrations. Methane and O_2 checks will be made in all locations required in the inspection procedures manual. If no low O_2 or

methane is detected, a statement that gas tests were conducted and no abnormal readings were detected will suffice. The CH_4 measurements must be recorded when bottle samples are collected. If the mine is using diesel equipment underground, checks for diesel emission gases (Co and NO_2) must be documented in the same manner as CH_4 and O_2.

4. General Roof Conditions and Any Abnormalities. Roof conditions shall be evaluated. If roof support appears adequate, a general statement that the roof conditions appear "OK" and the places appear adequately supported will suffice. If any abnormalities are observed (faults, interfaces, etc.), they shall be noted.

5. Air Measurements. Record air measurements taken, including those related to diesel equipment, along with data to support the measurements (location, height, width, velocity, and CFM) on the air reading forms or in the narrative portion of the notes.

6. General Observations of Ventilation Controls, Combustible Materials, Rock Dust Application, Fire Protection Equipment, and the Use and Storage of Explosives and Diesel Fuel. This should be documented when applicable. The documentation can be done with general descriptive statements pertaining to the subject area.

7. Mining Methods and Observations of the Mining Cycle. The mining methods and observation of the mining cycle shall be documented. This documentation shall include the type of mining method (continuous mining advance, continuous mining retreat, conventional mining advance, etc.) and a statement that the complete mining cycle was observed. General narrative statements will suffice for this documentation.

8. Identify Equipment Examined. As equipment is examined, it shall be identified by company number, serial number, or some other means to identify the equipment. After the identification, a general statement of the examination will suffice.

9. Sketches or Other Illustrations. Face sketches and/or other illustrations may be used to document conditions on the section. They may also be used to complement the narrative notes or in some instances replace the narrative notes as long as required documentation is obtained.

E. Outby Areas.

1. Record Areas Inspected. All areas examined and traveled shall be identified. Starting points of travel and stopping points of travel shall be documented by survey station or some means to identify the location where travel began and ended.

2. Evidence of Examinations. All areas shall be examined for sufficient and current dates, times, and initials to indicate that required examinations have been conducted. A general statement that "there were sufficient dates, times, and initials observed to indicate that required examinations are being conducted" will suffice.

3. Evaluations of Air Quality and Mine Gases. Methane and O_2 checks and checks for gas will be made in all locations required in the inspection procedures manual. If no low O_2 or methane is detected, a statement that gas tests were conducted and no abnormal readings were detected will suffice. If the mine is using diesel equipment underground, checks for diesel emission gases (CO and NO_2) must be documented in the same manner as CH_4 and O_2.

4. Air Measurements. Air measurements will be taken, including those related to diesel equipment, at locations required by inspection procedures. Data to support the measurements (location, height, width, velocity, and CFM) shall be recorded on the air reading forms or in the narrative portion of the notes.

5. Identify Equipment Examined. As equipment is examined, it shall be identified by company number, serial number, or some other means. After

the identification, a general statement of the examination will suffice.

6. Rock Dust Surveys. Rock dust surveys shall be documented in inspector's notes. The documentation shall indicate the location and the extent of the survey, as well as the number and location of samples taken. This can be accomplished through sketches on the grid sheets or in narrative form.

F. Surface Areas.

1. Identification of Areas Inspected. All areas examined shall be identified, such as shops, highwalls, pits, impoundments, etc. After the identification, a general statement of the examination will suffice.

2. Identify Equipment Examined. As equipment is examined, it shall be identified by company number, serial number, or some other means. After the identification, a general statement of the examination will suffice.

G. Citations and Orders. Record all facts relative to the condition or practice cited and information specific to the mine relative to the negligence and gravity determinations. The facts relating to the 8 items listed below shall be documented in the citation or in the inspector's notes. There is no particular method or format for documenting this information.[26]

1. What time was the violation observed?

2. What is the violation?

3. Where is the violation located or observed?

4. Who knew the violation existed?

5. How long has the violation existed?

6. How many people are exposed to the condition/practice?

7. If an accident should occur because of this type violation, how serious would it be?

8. What is the likelihood that this type accident will occur at this mine? Why?

H. Line Diagram or Mine Map. A page is provided to allow the inspector to draw a line diagram showing the areas of the mine that were inspected during an AAA inspection. A mine map can be used in lieu of the line diagram. This page can either be inserted into the inspection notebook or kept at the inspector's work station, and it is to be updated daily from the beginning of the inspection to the day that the entire mine has been inspected. The line diagram or a mine map is required to track inspection progress and will be a part of the inspection report. The line diagram or mine map will serve as a tracking system to ensure that no areas of the mine have been omitted from an AAA inspection.

I. Health Inspections. The two specialty sheets have been provided to assist inspection personnel in documenting respirable dust and noise inspections. Sampling times, equipment checks, occupation codes, and other required data for health inspections shall be documented on these pages. A notetaking package shall be made up prior to each health inspection. This package shall contain one of the two specialty pages, a general information sheet, a daily cover sheet, and narrative pages as needed.

J. SCSR Training, Inspection, and Storage Evaluation. Inspections should document the number of miners with whom SCSR donning procedures were discussed to evaluate the adequacy of SCSR training. When inspecting SCSR storage locations, inspectors should document that they conducted a mine-site evaluation of the approved SCSR storage plan parameters in their inspection notes. The notes should also include the following for each self-rescue device inspected:

1. the name of the manufacturer of the device;

2. the model and serial number of the device;

3. the date of manufacture of the device;

4. the method of deployment, i.e., "C" worn/carried, "M" machine mounted (including personnel carriers), "S" stored or cached underground, "W" stored/warehoused on the surface;

5. the location of the device at the time of inspection; if a device is normally worn or

carried by the miner, the location the miner normally works should be documented; and

6. the date the mine operator last tested the device.[35]

III. Mine Activity Data and Mine Status Data (MSHA Forms 2000-22 and 2000-122)

The inspector shall complete MSHA Form 2000-22 as an internal cover page for all types of inspection or investigative activity reports. All citations and orders, if any, shall be attached in proper sequence, followed by the appropriate tables, as needed. These elements make up the inspection report, which must be filed at the completion of every inspection.

Therefore, all citations and violation documents, investigation reports, surveys or any other documentation resulting from an action by an AR, including inspection reports, will be transmitted to the recording/clerical staff under cover of the MSHA Form 2000-22.

The Mine Status Data Form, MSHA Form 2000-122, must be used whenever a change or update in the mine status occurs.

A. Mine Activity Data Form (MSHA Form 2000-22) (Inspection Cover Sheet). This form is printed in two versions, Copy A and Copy B. Copy A contains a preprinted event number in item 3, whereas Copy B can be used either for long-term events such as: the first and/or interim report data sheet; for a replacement form in case Copy A is misplaced; or for a continuation sheet of Copy A for items such as 17 and 18. This form shall be filled out legibly, using only black ink. All items (boxes) must be filled out by entering either the appropriate information or by entering zeros (0) or other such notations indicating that the item did not pertain to the activity.

Education and training personnel do not need to fill out Items 13 through 16, since these items pertain to inspections.

When an activity will exceed one day, it is suggested that initially Items 1 through 11 be completed and a copy made and forwarded to the MIS terminal operator. This will facilitate the early entry of the event number (Item 3) into the computer system.

1. Action. Indicate if this report is new or if it is updating a previous original report.

2. Activity Code. Enter one of the authorized inspection activity codes.

   NOTE: **Education Specialist** - Right of Entry (3XXXX) time will not be accepted by the computer system for any A, B, and C coded event except for AFA, AFB, and AFC coded events.

   Right of Entry personnel (4XXXX) and **AR's** (2XXXX) will be able to enter their time against any A, B, and C coded events and EAB, ECA, EDA, EHA, and EMA.

3. Event Number. This item is the preprinted event number to be used on T&A's and Citation/Orders. Exercise great care to prevent transposing digits when writing this number.

4. Date Event Started. Enter the appropriate event starting date (month, day, year). The start date begins when any activity time is used on one or more of the following items: inspection preparation, travel, or on-site inspection.

5. Date Event Finished. This is the date on which all physical, written, and verbal activities have been completed. This includes report preparation and on-site closeout conferences.

6. Mine ID. The authorized 7-digit mine identification number.

7. a. Organization Code (Mine Assignment). Enter the last four digits of the Field Office organization code that is assigned the responsibility for inspecting the mine.

   b. Work Group Identifier. Enter the 2-digit work group identifier that is assigned the responsibility for inspecting the mine.

8. a. Organization Code (AR Assignment). Enter the last four digits of the organization code that is performing the inspection when this organization is not the field office with the assigned responsibility.

   b. Work Group Identifier. Enter the 2-digits of the work group identifier that is performing the

inspection when this work group is not the work group with the assigned responsibility.

9. Company Name, Mine Name. This entry must be identical to the company and mine name contained in the current mine status record.

10. Mine Name. Same as 9.

11. Report Type. Items A, B, and C are used to identify a long-term activity. Item "B" identifies the intermediate report segments; and the final report segment is identified with item "C". Item "D" is used to identify all reports which are not long term. The original (Copy A) should be held as the "last" report segment for long-term events.

12. Areas of Inspection. Items A through M identify the area(s) inspected or visited during this activity. All boxes (12A through 12M) must contain an entry -- positive (a number or a "y") or negative (a zero or an "n").

    A. Active Sections. Sections that are producing coal. The number of producing sections inspected/visited must be entered.

    B. Idle Sections. Sections that are not producing coal. The number of nonproducing sections inspected/visited must be entered.

    C. Outby Areas. All underground areas excluding sections. Enter a "y" or "n."

    D. Shafts/Slopes. Existing shaft and slope openings. Enter a "y" or "n."

    E. Surface Areas (UG). All surface areas of an underground mine that are required to be inspected, such as preparation plants, bath houses, fans, unnumbered impoundments, etc. Enter a "y" or "n."

    F. Surface Workings. Surface mines and surface facilities. Enter a "y" or "n" and identify under either Item 12M or Item 17 (Remarks) the type of surface working inspected.

    G. Company Records. All records and documents stipulated in Title 30 CFR. Enter a "y" or "n."

    H. ATF. Surface explosives storage facilities. Enter a "y" or "n."

I. Impoundments. Impoundments with identification numbers. Enter a "y" or "n."

J. Refuse Piles. Numbered refuse piles with identification numbers. Enter a "y" or "n."

K. Major Construction. Enter a "y" or "n" in the first box after 12K. Items K(1) through K(5) will reflect the number of the various major construction operations covered by the report. Enter the number of each type inspected.

L. Miscellaneous. Complete this item for any area of inspection not covered in Items 12A through 12K above. Enter a "y" or "n" and explain under Item 17 (Remarks).

M. MMU/Pit Number. List all Mechanized Mining Units and Pit identifiers that were inspected.

13. Number of Samples Collected. The type(s) and total number of samples taken during the period covered by the inspection report. Item 13C will reflect the number of surveys conducted. Items 13A, 13B, 13D, and 13E will reflect the total number of samples taken for each type. If Item 13F contains a value, show specific types of samples taken in Item 17 (Remarks).

14. Impoundments/Refuse Piles. Identifies data pertaining to numbered waste deposits inspected. Should more than 10 waste deposits be inspected, additional entries can be made on an additional event sheet.

A. Number. The complete waste deposit number is 15 digits. However, starting from the left, the first 8 digits of this number are made up of the Standard Industrial Classification (SIC) Code (4 digits), the State abbreviation (2 digits) and the District (2 digits). Since these items either do not change, as in the case of the SIC Code, or can be identified from the mine ID number or the organization code, they will not be entered on either the database or the form. Enter into the available positions the last seven digits of the waste deposit identification number that includes the site identification number (5 digits) and the number of the waste deposit at that site (2 digits). If the last two digits are less than nine,

include a zero before the last digit (example - 03).

B. FHC. Enter the field hazard classification for the waste deposit as Roman numerals. Acceptable entries will be Roman numerals I - IV and trailing alphabetic characters A through E. The Roman numerals should be filled in beginning from the left most block. However, the alphabetic character must be entered in the right most block. If the code is less than four characters long, leave the block(s) between the Roman numerals and the alphabetic character blank.

C. Configuration. Only Roman numerals I through XI are acceptable (I-VI for waste deposits, VII-XI for impoundments) for the configuration code for the waste deposit, and should be filled in beginning from the left most block. If the code does not fill all 4 blocks, leave the right most block(s) blank.

15. Prime Independent Contractor Codes (Major Construction). Enter the 3-position alphanumeric identifier of the prime/leading independent contractor(s) who are inspected as major construction operations under Item 12K only. Do not list minor subcontractors.

16. Inspection Results. Record the number of citations, orders, safeguards, and other actions taken during the period covered by the inspection report.

17. Remarks. Use this item to provide any other information deemed appropriate.

18. Signatures. Enter the signature(s) and AR/RE number(s) of the person(s) participating in the event during the period covered by the report.

19. Key Entered By. To be completed by the remote terminal operator who enters the data on this form into the system.

NOTE: A calendar has been provided on the reverse side of the form for use as directed by district policy.

Mine Activity Data - MSHA Form 2000-22 (Front)

Mine Activity Data - MSHA Form 2000-22 (Back)

B. Mine Activity Data Form (MSHA Form 2000-122). This form is prepared whenever it is necessary to enter or delete a mine from the system; to change the status of a mine; and to provide or change descriptive information about a mine.

Although mine operators are required under the regulations to notify MSHA of certain changes to the operational status of each mine, it is the responsibility of MSHA personnel to determine the correct operational and auxiliary status of each mine and ensure that this status is updated. The mine status shall be changed as often as necessary, either upon notification from mine operators or from personal observation. However, if upon personal observation the operational and/or auxiliary status of a mine clearly differs from the status provided by the mine operator, MSHA personnel shall determine the correct status and update MSHA Form 2000-122 to reflect the actual mine status. At a minimum, both the operational status and the auxiliary status of each mine must be reviewed and, if necessary, changed by updating MSHA Form 2000-122 at the start of every inspection/investigation event.

All other items on this form shall be reviewed for completeness and accuracy during each AAA inspection of the mine. However, it will not be necessary to fill out the form completely during these reviews. Any time the information is being updated, it is necessary to fill in only the first four items plus the information that is being changed. This form should be completed in black ink.

1. Action. Indicate whether this action is to add a new mine or if it is to update the information on an existing mine.

2. Mine ID. The 7-digit MSHA ID Number.

3. Organization Code. The 5-digit code of Field Office having jurisdiction over the mine.

5. Work Group Identifier. The 2-digit code of the Field Office work group responsible for inspecting the mine.

6. Company Name. This must agree with the Legal Identity Report. If name is longer than available

spaces, common abbreviations may be used (i.e., Company - Co., Incorporated - Inc., Corporation - Corp.). If abbreviations are not appropriate, fill in each of the blank spaces.

6. Mine Name. This must agree with the Legal Identity Report. If mine name is longer than available spaces, follow instructions for Item 5.

7. P.O./Location. This is the post office closest to the mine location (original mine portal). The post office may be in another county or state than the actual physical location of the mine.

8. County (FIPS). Enter the code for the county in which the mine is located (location of original mine portal). Codes are shown in Chapter 12 of the MIS Users Guide.

9. County Name. County in which the mine is located (location of original mine portal). Optional item for information purposes.

10. Congressional District. Enter the number of the Congressional District for the physical location of the mine.

11. Longitude. Coordinates of mine location. For surface mine with several pits, give coordinates of a centrally located pit. For underground mines, give coordinates of initial portals.

12. Latitude. Same as 11.

13. Union Code. If miners are represented by one of the unions shown in Section XIII of this chapter, show appropriate code. If there is more than one union at the mine, show the code for the major union. If mines belong to a union not shown, enter the nonunion code (90) and notify your supervisor so that a request can be made through supervisory channels to add that union to the list.

14. Is there a Designated Representative for Miners?. Mark the appropriate block.

15. Is Mine Safety Committee Maintained?. Mark the appropriate block.

16. Union Local. Complete if mine has a number for the union local.

17. Union District. If appropriate, show union district number.

18. Type of Mine. Indicate Surface or Underground. Surface includes all types of surface operations.

19. Check Principal Type Operation. Indicate primary purpose of installation. If other, specify in the remarks block.

20. Number of Surface Pits. Provide number of producing and nonproducing pits (i.e., shovel pits, auger pits, dragline pits, etc.). This item is required only when Item 19 contains an A, B or D.

21. Type Coal. Indicate the type of coal being mined. If other, explain in the remarks block.

22. Number and Types of Underground Openings. Indicate number of openings.

23. Avg. Mining Height (Inches). Provide the average mining height in the mine in inches. This information will be required when the mine goes into a producing status.

24. Avg. Daily Production (Tons). Show average production for the mine in tons. Obtain this figure from the operator.

25. Number Employed. Enter the total number of employees actually working both underground and on the surface. Obtain this figure from the operator. This figure should not include office workers.

26. Number of Prod. Shifts. Number of coal production shifts at underground and surface mines.

27. Number of Maint. Shifts. Number of scheduled shifts per day at mine during which only

maintenance and general type work is performed (i.e., coal is not produced).

28. 103(i) Status, Code, Date. Indicate whether or not the mine is in 103(i) status, the code used for 103(i) classification, and the date it entered the present status.

29. Operational Status. Operational status is defined in 30 CFR 70.220 and 71.220. Also refer to the authorized double alpha definitions at the end of these instructions.

30. Date Entered Operational Status. This is the date that a mine actually enters into or a change is made in the status shown in Item 29.

31. Auxiliary Status. Auxiliary Status provides additional information to the Operational Status to further define the status of the mine. Refer to the authorized double alpha definitions at the end of these instructions.

32. Date Entered Auxiliary Status. This is the date that a mine actually enters into or a change is made in the status shown in Item 31 thru 36.

33. Mailing Address for Receipt of Respirable Dust Material. This may or may not be the address of record which is provided on the Legal Identity Report. The four blocks to the right of the hyphen in Item 36 (ZIP code) are optional and are to be completed only if available.

37. Name (Attn.). Name of the person designated for Respirable Dust Material.

38. Remarks. This space is for any additional information or explanations.

39. Prepared by, Date. Enter the name of the person completing this form and the date it was completed.

40. Key Entered by, Date. Signature or initials of the employee who has entered this information into the computer and the date entered.

Mine Activity Data - MSHA Form 2000-122

C. General Mine Status Information. The status codes on this form are changed only when there are changes in the status of the complete mine. If there is a change in the status of a portion of a mine (MMU, DWP, DA) that does not apply to the complete mine, that change

should be reported on the MMU/DA/DWP Data Form. (Refer to Coal Mine Health Inspection Procedures Handbook.) The sampling requirements for the operator are based on the status of the individual sampling entities and not the mine itself.

The general definition of a producing underground mine, as given in 30 CFR 70.220 and 71.220, is one that has at least one producing MMU. Quality control reports will be generated to show those mines in the AA and AB Status that do not meet this requirement.

D. Definitions and Authorized Double Alpha Mine Status Combinations. When determining the mine status for an individual mine, the inspector must consider both the Operational Status and the Auxiliary Status. Together they represent a double alpha code that determines whether or not the mine is required to be inspected, sampled, etc. The sampling requirements indicated in these definitions refer to the Inspector Sampling Program. The following is a list of the allowable double alpha combinations and an explanation of each.

AA - Active Producing, Persons Working - This mine is active and coal or other material is being produced or, in the case of the surface mines, other material or equipment is being handled or moved and normal activities are occurring. Mines in this category are required to be inspected and sampled.

AB - Producing, Persons Working, New Mine - This combination applies only to underground mines during the development of the initial shafts and slopes and construction activities at new surface mines and facilities. In the case of an under-ground mine, persons are working, development of the mine is underway, and material is being produced. This category includes development of the initial shafts and/or slopes at a new mine until the coal bed is reached and coal mining begins. For surface mines material or equipment is being handled or moved. This includes construction activities, but does not include situations where normal mining or processing activities are occurring. Mines in this category must be inspected and sampled.

AC - Producing, Persons Working, Entry Denied - The mine is an active producing mine as defined in AA, but authorized personnel have been denied entry into the mine to carry out enforcement activities. Mines in this category are required to be inspected and sampled, but attempts to inspect these mines will not be made as long as the mines are in this status. Supervisors may schedule additional visits back to the mine to try to get the status changed until the time that legal proceedings are initiated. Such visits shall be coded as "Other Contacts" (CFC). However, after legal proceedings have been initiated, no visits shall be scheduled without prior consultation with the Solicitor's Office.

AD - Producing, Persons Working, Under MSHA Closure Order - The mine has been issued a Closure Order closing all or part of the mine; however, production activity is continuing in violation of the Closure Order. Mines in this category are required to be inspected and sampled. As long as the mines are in this status, attempts to inspect these mines will be made on a case-by-case basis, depending on individual circumstances. In other words, supervisors have the capability to inspect mines in this category but are not accountable for inspections that are not made. However, once legal proceedings have been initiated, no visits shall be scheduled without prior consultation with the Solicitor's Office.

BA - Nonproducing, Persons Working, Active - For underground mines, no material is being produced, but persons are working. For surface operations, normal activity is not occurring and coal is not being produced or processed or other material or equipment is not being handled or moved. Mines in this category are required to be inspected and MSHA sampling is optional depending on the individual circumstances.

BB - Nonproducing, Persons Working, New Mine - This combination applies only to underground mines. Persons are working and development of the mine is underway. This category includes all work for the initial development of the mine, excluding shaft/slope work, until coal production begins. Mines in this category are required to be inspected and MSHA sampling is optional depending on the individual circumstances.

BC - Nonproducing, Persons Working, Entry Denied - There is no evidence of material being produced or normal activity occurring, but persons are working and authorized personnel have been denied entry into the mine to carry out enforcement activities. Mines in this category are required to be inspected and MSHA sampling is optional, but attempts to inspect/sample these mines will not be made as long as the mines are in this status. Supervisors may schedule additional visits back to the mines to try to get the status changed until the time that legal proceedings are initiated. Such visits shall be coded as "Other Contacts" (CFC). However, after legal proceedings have been initiated, no visits shall be scheduled without prior consultation with the Solicitor's Office.

BD - Nonproducing, Persons Working, Under MSHA Closure Order - The mine has been issued a Closure Order for all or part of the mine and no material is being produced. Miners are working in violation of the Closure Order. Mines in this category are required to be inspected and MSHA sampling is optional, but as long as the mines are in this status, attempts to inspect/sample these mines will be made on a case-by-case basis depending on individual circumstances. In other words, supervisors have the capability to inspect mines in this category, but are not accountable for inspections that are not made. However, once legal proceedings have been initiated, no visits shall be scheduled without prior consultation with the Solicitor's Office.

BE - Nonproducing, Persons Working, Active, Intermittent Work - This combination applies to underground mines only. Persons are working intermittently, but no coal is being produced and other material is not being mined. (For example, seasonal underground mines that maintain ventilation and have persons checking and/or maintaining the equipment on an intermittent basis are included in this category.) Mines in this category are required to be inspected and MSHA sampling is optional depending on the individual circumstances.

CB - No One Working, Abandoned, New Mine - The mine has been issued an ID number, but at the present time there is no development work being done. Mines in this category are not required to be inspected or sampled.

CF - No One Working, Idle/Inactive, Temporarily Idled/Inactive - The work of all miners has been terminated and production related activity has ceased. It is anticipated that this is a temporary condition and that the mine will reopen in the near future. This category includes: (1) seasonal surface mines and underground mines; (2) underground mines that do not maintain ventilation; (3) mines that do not conduct underground examinations; and (4) mines that are idled and the only activity being conducted is security checks, visual examinations of surface areas to determine conditions, or activity due to another agency's requirement (state environmental agency,

Office of Surface Mining, etc.) to treat, test, or monitor water. Mines in this category are not required to be inspected or sampled and plan reviews are not necessary.[34]

It is important to determine that no work is being done at a mine before placing the mine in this temporarily idled status. Mines sites that have active impoundments are still subject to inspection and therefore cannot be placed in CF status. While there is no specific time restriction applied to mines in this status, it is necessary to verify what activity is taking place at the mine once each quarter. This may be accomplished by a brief mine visit or other documented contact with the mine operator.[34]

CG - No One Working, Abandoned - The work of all miners has been terminated and production activity has ceased and it is **not** anticipated that activity will resume in the near future. Underground mines permanently abandoned for more than 90 days are required to be sealed by the operator and a final map submitted. Likewise, surface auger holes are required to be sealed or blocked before the mine is abandoned. Mines that have not fulfilled the sealing requirements are coded in this category along with operations that are not required to be sealed. Mines in this category are **not** required to be inspected or sampled.

CH - No One Working, Abandoned, Sealed - The work of all miners has been terminated, production activity has ceased, and it is not anticipated that activity will

resume in the near future. The underground openings or auger holes have been sealed. Mines in this category are **not** required to be inspected or sampled.

IV. Mine Citation/Order Form (MSHA Form 7000-3)

This form is used to issue a citation or order at a mine where a violation of the Act or 30 CFR exists. This form should be filled out legibly, using a black ink, ball point pen.

A. Section I - Violation Data.

1. Date. Enter the date the violation is observed. The date requires a 2-digit number for the month, day, and year.

2. Time. The time by the 24-hour clock that the violation was observed. Therefore, a 4-digit number is required.

3. Citation/Order Number. This is a preprinted number. This number must be used when a later subsequent action, such as an extension or termination, warrants the use of a Form 7000-3a.

4. Served To. Enter the name and the title of the operator or operator's agent to whom the citation, order, or safeguard is served. If circumstances prohibit issuance directly to the operator or his or her agent, write in how and where served.

5. Operator. Enter the name of the proprietorship, partnership, corporation, or organization as listed on the Legal Identity Report in effect at the time the violation occurred. In case of an independent contractor, use the business name of the contractor.

NOTE: In the event an order or citation is issued to a mine in receivership, MSHA should cite both the operator and the receiver, if known. The citation should reflect liability of both parties -(Operator's name), (receiver's name).

6. Mine. The name of the mine or facility that corresponds with the ID number of the mine. This information should be taken from the Legal Identity Report in effect at the time the violation occurred.

7. Mine ID. This is the MSHA assigned ID number for the mine. If the violation being issued is the responsibility of the independent contractor working at the mine site, enter independent contractor ID number after the mine ID number.

8. Condition or Practice. A description of the conditions or practices that cause and constitute the imminent danger, violation, or notification must be written in detail. Include such items as a detailed description of the violation; mitigating circumstances, if any; the seriousness of violation (size, area affected, etc.); and the location of the violation.

   A. Written Notice [103(g)]. Mark this block only when a violation is cited during any inspection conducted as a result of a written complaint. Do not use this block for any violation other than those issued as a result of a written complaint. This does not alter the type of inspection that is ongoing.

9. Violation.

   A. Health, Safety, Other. Determine the type of hazard and mark the appropriate block as to whether the hazard relates to health, safety, or other (administrative).

   NOTE: For violations of 30 CFR 75.370, the inspector can mark both the health and safety blocks.

   B. Section of Act. If the violation is cited against a section of the Act, enter the section violated in the blocks provided.

C. Part/Section of Title 30 CFR. If the violation is cited against a section of 30 CFR, enter the part and section in the blocks provided. Title 30 CFR contains criteria paragraphs that introduce safety and health standards. The criteria paragraphs cannot be cited; reference must be only to the safety or health standard violated.

B. Section II - Inspector's Evaluation. Section II shall be completed for all citations and orders issued in relation to health and safety violations. Completion of this section should help the inspector determine if the violation is "significant and substantial." For "significant and substantial" violations, mark the block in Item 10C. Do not fill out Items 10 (Gravity) and 11 (Negligence) for Sections 103(j), 103(k), 107(a), 107(b), or 104(b) orders.

10. Gravity.

A. Mark the block that most describes the probability that an injury or illness would occur.

B. Mark the block that most describes the effect (seriousness of injury) on a miner if an injury or illness should occur.

C. If the violation of any mandatory safety or health standard cited is considered by the inspector to be significant and substantial, mark the "yes" block. If the violation is not considered S&S, mark the "no" block. The gravity section must support this determination.

D. Enter the number of persons who would be affected if the event should occur. Do not enter the number as a range of numbers such as "1 to 9." The type of accident anticipated is tied directly to the number of miners affected.

11. Negligence. Mark the block that most nearly describes the degree of the operator's negligence in allowing the hazard or violation to exist. When applying this criterion, MSHA considers action taken by the operator to prevent or correct conditions or practices that caused or allowed the violation to exist. In determining the operator's diligence in protecting miners in any given hazard situation, recognition is given to mitigating circumstances that explain the operator's conduct in

minimizing or eliminating a hazardous condition. Mitigating circumstances may include, but are not limited to, actions which an operator has taken to prevent, correct, or limit exposure to mine hazards before the violation is cited by the inspector.

A. None. The operator exercised diligence and could not have known of the violative condition or practice.

B. Low. The operator knew or should have known of the violative condition or practice, but there are considerable mitigating circumstances.

C. Moderate. The operator knew or should have known of the violative condition or practice, and there are some mitigating circumstances.

D. High. The operator knew or should have known of the violative condition or practices, and there are no mitigating circumstances.

E. Reckless Disregard. The operator displayed conduct that exhibits the absence of even the slightest degree of care.

12. Type of Action. Based on the previous evaluation on the circumstances surrounding the violation, the type of action must be consistent with the gravity, S&S designation, and negligence. Enter the appropriate type of action (104(a), 104(d)(1), etc.) supported by the previous evaluation.

13. Type of Issuance. Identify whether the issuance is a citation, order, or safeguard.

14. Initial Action. A through D are self-explanatory.

E. Citation/Order Number. Enter the preprinted number (Item 3), where applicable, that identifies the previously issued citation, order, or notice that supports the present action.

F. Dated. Enter the date of the initial citation, order, etc., referenced in Item 14E.

15. Area or Equipment. This pertains to orders only and must specify the area or equipment from which employees shall be withdrawn until the dangers and

causes of such dangers have been corrected. Also, the equipment that shall be removed from service must be positively identified by type, manufacturer, model, such as:

DUO 14 BU Loading Machine
Serial No., or
Company ID Number

16. Termination Due.

A. Date. Enter the date by which the condition must be eliminated for all citations and safeguards issued. Reasonable time must be given. No entry is required for orders or for citations associated with 107(a) orders.

B. Time. Enter the time by the 24-hour clock by which the condition must be eliminated for all citations and safeguards issued.

C. Section III - Termination Action.

17. Action to Terminate. Fully describe what was done to eliminate the condition including the method used - supported, cleaned up, repaired, etc.

18. Terminated.

A. Date. This is the date the reinspection was made to determine that the condition was eliminated.

B. Time. Enter the time by the 24-hour clock it was determined by reinspection that the hazard had been eliminated.

D. Section IV - Automated System Data.

19. Type of Inspection. Enter the Management Information System activity code that corresponds to the type of activity being conducted.

20. Event Number. Enter the preprinted number found on MSHA Form 2000-22 in these blocks. This item is to be left blank for office generated citations.

21. Primary or Mill. This portion is for the use of metal and nonmetal inspectors only.

22. Signature. The inspector must sign in ink in this location.

23. AR Number. Enter the identifying number assigned to the authorized representative who signed the form.

MSHA Form 7000-3 - Mine Citation/Order

V. Mine Citation/Order Continuation Form (MSHA Form 7000-3a)

This form is used to record a subsequent or following action relating to a citation/order issued earlier, or to correct an error on the original citation/order. It can be used as a continuation of the original citation/order for additional writing space. Two subsequent actions may be taken on one form (i.e., modification and extension); however, a second subsequent action number must be added on the form at the end of Item 3. This form should be filled out legibly, using black ink.

A. Section I - Subsequent Action/Continuation Data.

1. Subsequent Action/Continuation. Mark the appropriate box. If an entry is to be made on line 8, the "Subsequent Action" box must be checked. When additional writing space is needed, the "Continuation" box must be checked.

2. Date (Original Issue). Enter the date of the original notice, citation or order being affected.

3. Citation/Order Number. Circle the word "Citation" or "Order" as applicable. Enter the original notice, citation or order number from the 7000-3 form being affected. Add to the number a subsequent action suffix that is one number higher than the one used on a previous subsequent action (i.e., 02). No more than two subsequent action numbers can be used on a form.

4. Served To. This is the name and title of the person to whom the document is served. If circumstances prohibit serving the document directly to the operator or his or her agent, indicate how and where it was served.

5. Operator. Enter the name of the proprietorship, partnership, corporation, or organization as listed on the mine's Legal Identity Form. In the case of an independent contractor, use the business name of the contractor.

6. Mine. This is the name of the mine or facility as it appears on the Legal Identity Form.

7. Mine ID. Enter the MSHA assigned ID number of the mine. When applicable, enter the independent con-

tractor's assigned ID number after the mine ID number.

B. Section II - Justification for Action. Describe in detail the circumstances and reasoning indicated in Item 8 or use this as a continuation sheet.

C. Section III - Subsequent Action Taken.

8. Extended To. Complete the following information when this form is used to extend, vacate, terminate or modify a citation, notice or order.

A. Date. Enter the date to which citation or notice is extended.

B. Time. Enter the termination time for the extension of the notice or citation using 24-hour clock time.

C. - E. Mark the appropriate box for the intended action.

D. Section IV - Inspection Data.

9. Type of Inspection. Enter the appropriate MIS Activity Code letters for the type of inspection being conducted or office generated activity.

10. Event Number. Enter the event number from the "Mine Activity Data" sheet being used to record this inspection. This item is left blank for office generated activities.

11. Signature/AR Number. Sign the document and enter your AR number.

12. Date. Enter the date of the subsequent action or continuation (current date).

13. Time. Enter the time of subsequent action or continuation (current time) using the 24-hour clock time.

MSHA Form 7000-3a - Mine Citation/Order Continuation

VI. Department of the Treasury, Bureau of Alcohol, Tobacco, and Firearms (ATF Form F 5030.5, Report of Noncompliance with ATF Standards)

Submit this form with all AAA inspection reports for mines that use explosives and with any other inspection report where an ATF standard is cited. Attached are three (3) examples of completed Bureau of Alcohol, Tobacco, and Firearms report of noncompliance with ATF standards

Example 1: Notice of noncompliance even though violation was complied with while inspection was being made. This is a history of the total operation and could possibly be important in the future if same noncompliance is found. No recall needed if violation is complied with and future voluntary compliance is indicated.

Example 2: Notice of noncompliance issued since violation could not be complied with while inspection is being made. "Recall" date set and indicated when the operator would be in compliance.

Example 3: "Recall" has been made and all violations apparent on August 25, 1989, have not been corrected and future voluntary compliance is not indicated. When a "Recall" investigation is necessary a judgment must be made at this time to determine if the noncompliance is willful or nonwillful. If some circumstances have prevented the compliance and the explanation is satisfactory, an additional "Recall" can be made without further action. If the continuing violations are considered willful, the investigation should be referred to ATF for further investigation. If the inspector cannot get the form signed by the owner or his or her agent, then the inspector will write in the name of the individual involved and so state that this is not a signature. A copy of the completed form should still be given to the owner or his or her agent. Where the inspector is required to sign any of the ATF forms, it has been requested that the inspector also print his or her name in the same block as has been done in the past to determine the name of the person who signed the form.

A "Recall" inspection is similar to an inspection made by an MSHA inspector following the expiration of the abatement time granted when a citation is first issued.

Example 1 - ATF Form F 5030.5

Example 2 - ATF Form F 5030.5

Example 3 - ATF Form F 5030.5

VII. Dust Sampling Lab Report (MSHA Form 2000-156)

Submit this form with all inspection reports where rock dust/coal dust samples have been collected and with all AAA inspection reports where an underground area has been advanced a sufficient distance to justify sampling. Do not hold up processing of the inspection report. Place this form in the report file if it is received after the inspection report has been processed. (Refer to Chapter 4, Section III, of this handbook for guidelines to complete form.

MSHA Form 2000-156 - Dust Sampling Lab Report

VIII. Mine Atmosphere Sample Record (MSHA Form 2000-43)

Submit this form with all inspection reports where air bottle samples are collected during the inspection time-frame. Do not delay processing the inspection report. Place this form in the report file when it is received. (Refer to Chapter 4, Section I., of this handbook for guidelines to complete form.

Mine Atmosphere Sample Record (MSHA Form 2000-43)

IX. Violation Review Special Assessment (MSHA Form 2000-203)

Complete this form for all citations/orders submitted for special assessment, and for all citations/orders that are required to be reviewed for special assessment but where a determination has been made not to request a special assessment. Refer to Program Policy Manual, Volume III, for criteria and procedures for special assessment of civil penalties, and to Program Policy Manual for Special Investigations.

MSHA Form 2000-203 - Violation Review Special Assessment

X. Plan Review (MSHA Form 2000-204)

Submit this form for all inspections and investigations during which a roof control or ventilation plan review was completed.

MSHA Form 2000-204 - Plan Review

XI. Possible Knowing/Willful Violation Review Form (MSHA Form 7000-20)

Submit this form through established channels with any citation/order that requires a review for a possible Section 110 investigation. Complete this form in black ink.

Mine I.D. - Enter the 7-digit Mine Identification Number which identifies the specific mine. Include the contractor I.D. number, if appropriate.

MSHA Office - Enter the office having jurisdiction over the mine.

Mine Name - Enter the specific mine name. This entry must agree with the Legal Identity Report for the corresponding I.D. number.

Company Name - Enter the specific company name. This entry must agree with the Legal Identity Report for the corresponding I.D. number.

A. Violation Information.

Citation/Order No. - Enter the preprinted number on the citation/order form.

Date - Enter the date the citation/order was issued.

B. Accident Information. Self-explanatory.

C. Review Criteria.

1. Self-explanatory. (Mandatory standards - 30 CFR 48, 70, 71, 75, 77, and 90)

   Properly cited? Does it meet criteria for type of issuance?

2. Complete Items 2(a) through 2(d) first before checking YES or NO.

   a) List names if available; if not, at least identify by occupation, i.e., 3rd shift crew, 4/3/89, 5th right (shift, location, etc.).

   b) Describe your observation or information received as to exposure.

c) How long had condition/practice existed -- list dates, times, shifts, etc. Include as many specifics as possible.

d) Self-explanatory. Factors to help determine "high degree of risk" include, for example:

- Time of exposure to danger (number of hours, days or weeks);
- Number of persons exposed to the danger;
- Experience and/or training of miners exposed to the danger;
- If the event occurred, how serious would the injuries be;
- Would the event cause mine rescue or recovery work; and
- Resultant amount of property damage.

"NO" should be marked, for example, if citation under review is issued for working in violation of an order that when originally issued was not S&S. (For example, 104(b), 104(d)(1) or (2) orders non-S&S.) Additionally, note original order in Item 4.

3. Items 3(a) and 3(b) should explain reason(s) for the "YES" block being checked.

   a) Identify at least one person.

   b) Do not hesitate to ask questions.

   c) Self-explanatory.

4. EXAMPLE: Is inspection ongoing? Include any additional facts which may have bearing on the violation.

D. Inspector's Conclusion. Self-explanatory.

E. Possible Recommended Actions. Inspectors/Supervisors should not complete anything in the final two sections.

MSHA Form 7000-20 shall be maintained only in the special investigation files and shall **not** be maintained in

the regular inspection files. **The copying of MSHA Form 7000-20 is prohibited.**

MSHA Form 7000-20 - Possible Knowing/Willful Violation Review

XII. Weekly Time and Activity Data (MSHA Form 2000-60)

A. General. Refer to Section I of this chapter for an explanation of the activity codes that should be used when completing this form.

Computer data entry of the information on this form is only required for AR's and Right of Entry personnel, and GM/GS-13 and below who are assigned to Districts, Subdistricts, and Field Offices. Other employees may be required to complete this form for payroll documentation purposes. Enforcement and Training Personnel, including Technicians performing inspection assistance duties, will complete all items on MSHA Form 2000-60 when applicable for activity codes AAA through CFC, EAC, EJA, EKA, and ELA. There are several general instructions that apply when using these codes. Activities AAA through CFC must be used by AR's and Code 4, Right of Entry, personnel in conjunction with a mine ID number and an event number. EAC, EJA, EKA, and ELA are used only by Training Specialists with a mine ID number and an event number. Training Specialists can also charge time to codes AFA, AFB and AFC but not to any other A, B, or C activity code.

Collectively the codes AAA through CFC, EAC and EJA through ELA are referred to as events throughout the rest of these instructions. All other personnel will complete only Items 2 through 6, 9 through 11D and if applicable, Items 13, 16, and 18. Items 11, 13, 14, and 15 document the number of hours worked in a particular category. All four of these items contain two positions for recording full hours and one position to record quarter hours which is on the right and is separated by a dashed vertical line. Quarter hours are calculated as follows: "0" for no minutes; "1" for one quarter of an hour or 15 minutes; "2" for one-half hour or 30 minutes; and "3" for three-quarters of an hour for 45 minutes. There can be no entry for 4 or more since when you reach 4 you have completed another full hour. This form should be completed in black ink. An explanation follows with corresponding reference numbers for the information required for each line, space or block.

1. Control number. This is a six-digit pre-printed number. It begins with 000001 and increments upward. It must be unique and in combination with Item 8 (line number).

2. Name. Give last and first names and middle initial.

3. Social Security Number.

4. Organizational Code.

5. Work group identifier.

6. Action. Indicate whether this is the original report or if it is an update of the original.

7. AR Number/Right of Entry Number. Required for Authorized Representatives (2XXXX), Training Specialists (3XXXX), Engineering Technicians assigned to inspection assistance work (4XXXX), and other non-AR personnel who routinely travel in the mines (4XXXX). This item is left blank when the information pertains to personnel other than AR's and Right of Entry personnel. Data entry will not be accepted if this item is blank.

8. Line Number. Pre-printed on the form.

9. Date. Month, day, year. Enter the appropriate date for the time worked.

10. Activity Code. Refer to Section I of this chapter for the activity codes for enforcement and support personnel.

11. Payroll Time (hours worked). "A" - Regular: must always be entered unless an extra page is used which shows only overtime or compensatory time, or both. "B" - Overtime: if applicable. "C" - Compensatory Time: if applicable. "D" - Total: must always be entered and must equal the total of A+B+C. When reporting an event, "D" must equal the total of Items 13, 14, and 15.

12. Shift On Site. This is required data for events when time is entered in Item 15, On-Site Inspection Time. Shifts are based on mine work schedules and the codes are (1) owl shift, (2) day shift, (3) evening shift. Two-line entries are required when there are shift over-laps, one entry for each shift inspected or other activity conducted. This entry is designed to identify the shift that the employee was actually at the mine site. It is not designed to identify which shift

he/ she traveled on. For example, if an employee left the office at 6:00 a.m. to travel to the mine in order to ride the man trip underground and spent 6 hours inspecting all on the day shift, then he/she would have a one-line entry on the number 2 shift. The only time that multiple entries would be required for an activity on any given day would be when the inspector or training specialist was actually at the mine for more than one shift.

13. Travel. Required entry for all codes when travel is involved. Enter travel time to the nearest quarter hour. For codes DFA through FZA and TEA, except for E code events, this figure does not have to equal Item 11D; however, it cannot exceed Item 11D.

14. Inspection Preparation and Report Writing. Optional for AR and RE personnel when reporting events.

15. On-Site Activity Time. ~~Optional entry~~[30] For AR and RE personnel when reporting events. Enter time for "A" - MMU's or Pits, "B" - Outby Areas (underground mines); "C" - Surface Areas (UG mines); or "D" - Surface Areas (Excl. pits). Item 15 "D" is for time spent at Surface Mines excluding time at the Pits.

16. Event Number/Project Identifier. Required for AR and RE personnel when reporting events. This number is taken from the Mine Activity Data Form (2000-22).

17. Mine ID Number. Required data for AR and RE personnel when reporting events.

18. Clock Hours. This is to be completed when claiming premium pay. Premium pay is a general term used to identify all forms of compensation to employees for work over and above their regular tour of duty. It includes Overtime, Compensatory Time, Night and Sunday Differential and Holiday Pay when an employee has worked on a holiday. Enter the time of day that the premium pay was earned. The entry in this column will confirm the pay claimed. See below for specific instructions on how to record premium pay. This column can also be used for reporting clock hours for leave.

19. Remarks. Fill in additional information as appropriate.

20. Certified Correct and Overtime Authorized. Required to be signed by the employee's supervisor.

21. Key Entered by . . . Date. Enter the initials or signature of the person entering this data onto the computer terminal and the date that it was entered.

B. Recording Premium Pay. The form contains space to record overtime and compensatory time earned. The time claimed is recorded in Items 11B or 11C as appropriate and is confirmed by entering the clock hours that they were earned in Item 18. When claiming Sunday differential, the hours are recorded in Item 11A and confirmed by entering the clock hours in Item 18. A note is also made in the remarks block (i.e., LN-01 8 hours of Sunday differential). Sunday differential cannot exceed 8 hours per shift. Night differential is reported in a similar manner. The hours worked are entered into Items 11A and/or 11B as appropriate and confirmed by entering the clock hours in Item 18. A note is also made in the remarks block (i.e. LN-05 hours of night differential).

When claiming holiday pay, all hours worked on the holiday should be recorded in Item 11A using the activity code for the work actually performed. The activity code "GDA" should only be used if the employee worked less than eight hours on the holiday to record the remainder of the day. For example, if an inspector worked six hours on a fatal accident investigation, the time should be recorded as 6 hours for "ADA" and 2 hours for "GDA". The employee should also enter the clock hours in Item 18, and a note in the remarks block of the number of hours worked on the holiday, so that the payroll clerk will be sure to code the time card properly.

The above types of premium pay can also be claimed in combination with each other. (Not all combinations are allowable. You cannot earn Sunday differential with overtime). You do not make separate line entries just for premium pay purposes. If all other items (date, activity code, shift, event number) call for a single line entry, then just one line should be entered. Because of the limited amount of space in the block for clock hours, only a single time entry should be made

there. If a second set of hours is required, they should be entered in the remarks block. If you have any further questions regarding the coding of premium pay, ask your supervisor or administrative officer.

MSHA Form 2000-60 - Weekly Time and Activity Data

XIII. Union Codes

Union codes are entered on the Mine Status Data Form (MSHA Form 2000-122) to maintain a record of which mines belong to which unions. Each union has been assigned a 2-digit numeric code.

Code	Name
01	Coal Strippers Union
02	Chariton Valley Independent Union
03	Crow Hollow Miners Union
04	Independent Miners Union
05	Independent Strip Mine Workers
06	International Brotherhood of Electrical Workers
07	International Construction Union
08	International Union of Operating Engineers
09	Progressive Mine Workers of America
10	Redstone Workers Union
11	Southern Labor Union
12	United Mine Workers of America
13	Welch Miners Union
14	Teamsters and Chauffeurs
15	Brotherhood of Miners
16	International Chemical Workers Union
17	Scotia Employees Association
18	Utility Workers of America
19	General Teamsters
20	Lignite Energy Workers of America
21	Western Energy Workers Union
22	Oklahoma Coal Miners Union
23	United Steelworkers of America
90	Nonunion Mine

XIV. Examples of Citations and Orders

Attached are the following examples of different types of citations and orders that can be issued.

Example 1 - 104(a) Citation - Refusal of Entry

Example 2 - Withdrawal Order - Failure to Abate

Example 3 - 104(a) Citation

Example 3(a)- Extension of 104(a) Citation

Example 4 - Termination of 104(a) Citation

Example 5 - Modifying a Citation

Example 6 - 104(b) Order - Failure to Abate

Example 7 - 104(a) Citation - Violation of an Order

Example 8 - Termination of 104(b) Order

Example 9 - 103(g) Inspection - Purpose and Findings

Example 10 - 103(j) Withdrawal Order

Example 11 - 103(j) Order Modification

Example 12 - Termination of a 103(j) Order

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Example 14 - Imminent Danger Order with Underlying Causes

Example 14(a)- Citation - Contributing Factor in Imminent Danger Order Based on Previously Issued Notice to Provide Safeguard

Example 15 - 107(a) Order - Imminent Danger and Multiple Mandatory Standards Violated in the Order

Example 15(a)- 104(a) Citation - Issued for a Condition in Imminent Danger Order No. 0802736

Example 16 - 104(d)(1) Citation and Termination

Example 17 - 104(d)(1) Order

Example 18 - 104(d)(2) Order - Subsequent Inspection

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Example 21 - Title I Violation and Termination

Example 22 - Section 317(c) - Smoking

Example 1. 104(a) Citation - Refusal of Entry

Example 2. Withdrawal Order - Failure to Abate

Example 3. 104(a) Citation

Example 3a. Extension of 104(a) Citation

Example 4. Termination of 104(a) Citation

Example 5. Modifying a Citation

Example 6. 104(b) Order - Failure to Abate

Example 7. 104(a) Citation - Violation of an Order

Example 8. Termination of 104(b) Order

Example 9. 103(g) Inspection - Purpose and Findings

Example 10. 103(j) Withdrawal Order

Example 11. 103(j) Order Modification

Example 12. Termination of 103(j) Order

Example 13. 103(k) Withdrawal Order

Example 14. Imminent Danger Order with Underlying Causes

Example 14a. Citation - Contributing Factor in Imminent Danger Order Based on Previously Issued Notice to Provide Safeguard

Example 15. 107(a) Withdrawal Order - Imminent Danger and Multiple Mandatory Standards Violated in the Order

Example 15a. 104(a) Citation - Issued for a Condition in Imminent Danger Order No. 0802736

Example 16. 104(d)(1) Citation and Termination

Example 17. 104(d)(1) Order

Example 18. 104(d)(2) Order - Subsequent Inspection

Example 19. 104(g)(1) Order - Untrained Miner

Example 20. Notice to Provide Safeguard and Termination

Example 21. Title I Violation and Termination

Example 22. Section 317(c) - Smoking

Addendum to the Coal General Inspection Procedures Handbook

The material provided below is background information related to the significant changes made to the referenced inspection procedures. This information is being provided to help explain why these procedural changes were made. In some cases, the explanation also gives further guidance related to the intent of the subject procedure. Each listing indicates the page or pages where you can find the revised procedures and is preceded by a number that also appears at the end of the revised text in the handbook.

1. (Page 1-2, Chapter 1) Procedures for dealing with picket line situations have been clarified in response to comments from the NCFLL and several Districts. Revised procedures provide additional guidance for determining how to deal with a picket line situation and what steps should be if access to mine property is denied.

2. (Page 2-1, Chapter 2) Requirements for inspectors and specialists to review Uniform Mine Files have been expanded to include review of all petition for modifications granted for the mine.

3. (Pages 2-1 to 2-3, Chapter 2) List of equipment assigned or available to inspectors has been updated. A statement has been added requiring inspectors to be knowledgeable in use of and have access to the equipment listed. This revision is in response to the Southmountain Internal Review and comments from the NCFLL.

4. (Page 2-4, Chapter 2) Inspection activities on the first day of AAA inspections have been clarified. Going underground as quickly as possible on subsequent inspection days is now being stressed. Checking all working places on the section for imminent dangers prior to other inspection activities is also being stressed. In addition, a requirement has been added that inspectors accompany the mine examiner on at least one shift. These revisions are in response to the Southmountain Internal Review and comments from the NCFLL and the District managers' Council.

5. (Pages 2-5 to 2-9, Chapter 2) Procedures related to denials of entry have been expanded to address direct and indirect denials of entry separately. These revisions have been made in response to comments from the District Managers.

6. (Pages 2-5 to 2-9, Chapter 2) Procedures related to assault or harassment of inspectors have been revised to emphasize that Special Investigation personnel should be involved in dealing with these type situations as early as possible. These revisions have been made in response to comments from the District Managers.

7. (Page 2-15, Chapter 2) Procedures for abating or extending violations when the operator has filed petition for modification have been clarified. An example of circumstances when such a violation should be extended is now given. This revision is in response to changes in the ventilation regulations.

8. (Pages 2-15 and 2-16, Chapter 2) Procedures for including independent contractors in inspection activities have been clarified. The procedures now provide guidance for determining if there are independent contractors working on mine property and which inspection activities should include the contractors. This revision is in response to the Blacksville Internal Review.

9. (Page 2-17, Chapter 2) Use of the Conference Worksheet by inspectors to document close-out conferences has been discontinued. Closeout conference information will now be documented in the inspection notes. This revision is in response to comments from the District Managers.

10. (Pages 3-2 and 3-3, Chapter 3) Procedures for conducting reopening inspections and for issuing violations during such inspections have been clarified. An exception has been added to these procedures to address situations where only the mine name or ownership has changed, but the mine has not been closed or abandoned. This revision is in response to comments from the District Managers.

11. (Pages 3-3 and 3-4, Chapter 3) Procedures for conducting the first day of AAA inspections, including what records must be examined, have been clarified. Emphasis is still placed on inspecting the underground portions of the mine first unless other areas must be inspected first to address a serious problem or condition. We have clarified that at least the preshift and on-shift records, instead of all records, must be examined before going underground. All other records are to be examined during the course of the inspection. The revised procedures also require that the inspector must travel with the miner examiner on each shift. In addition the inspector now only has to observe at least one mantrip into and out of the mine instead of going underground with the mantrip on the first day of the inspection. These revisions are in response to comments from the District Managers' Council, the NCFLL, and Headquarters staff.

12. (Pages 3-4 and 3-5, Chapter 3) Equipment required to be inspected during AAA inspections has been clarified and an alternative method for inspecting steeply pitching intake slopes has been added. The equipment listed has been expanded to include face and diesel equipment and to permit mobile equipment to be inspected as encountered. These revisions are in response to comments from the District Managers.

13. (Page 3-6, Chapter 3) Procedures for evaluating operator smoking materials search programs have been expanded by adding requirements that inspectors be alert for evidence of smoking underground and that they observe searches conducted by the operator. These revisions are in response to the Fire Creek and Southmountain Internal Reviews.

14. (Page 3-6, Chapter 3) Procedures that required the inspector to proceed underground with the mantrip after determining the section to be inspected have been revised. The inspectors no longer must go underground with the mantrip, but should go to the working section as quickly as possible. This change coincides with the requirement that checks for imminent dangers should be conducted before other inspection activities. These revisions are in response to comments from the District Managers Council.

15. (Pages 3-6 and 3-7, Chapter 3) Procedures for evaluating operator dust control parameters have been updated to include observation and measurement of the parameters and use of the revised 2000-86 form. These revisions are in response to comments from the Health Division and in response to a Headquarters accountability review that found both the old and new 2000-86 forms being used in the same office.

16. (Page 3-7, Chapter 3) Procedures for inspecting multi-shift underground operations such as cutting or blasting have been clarified to indicate that these operations must be inspected during the inspection, but at the inspector's discretion. These revisions are in response to comments from the NCFLL.

17. (Pages 3-8 and 3-9, Chapter 3) Procedures for evaluating underground operators' mine examination efforts and records have been expanded to provide more detailed instructions. The revised procedures require inspectors to evaluate the overall program and evaluate such items as determining whether the mine examiner has sufficient time to perform the examinations of the required areas and the effectiveness of the operator's overall program. These revisions are in response to comments from Headquarters and are in response to findings of the AA&W accident investigation.

Addendum to the Coal General Inspection Procedures Handbook

18. Page 3-10, Chapter 3) Procedures that require the inspector to evaluate haulage practices including mantrips, rail equipment, and rubber tired haulage equipment during the coarse of the inspection have been added. Under this procedure, all haulage operations must be evaluated. This requirement is a change from the previous procedure that required inspectors to travel underground with the mantrip.

19. (Page 3-11, Chapter 3) Procedures for inspecting multi-shift surface operations such as drilling or blasting have been clarified to indicate that these operations must be inspected during the inspection, but at the inspector's discretion. These revisions are in response to comments from the NCFLL.

20. (Page 3-13, Chapter 3) Procedures for handling 103(g) hazard complaints have been expanded to provide instructions to better ensure the confidentiality of these type complaints. These revisions are in response to comments from the Safety Division.

21. (Page 4-1 to 4-2b, Chapter 4) Procedures for collecting air samples were revised in 1995 to give inspectors the option to collect additional samples if deemed necessary. These revisions were in response to comments from the District Managers and Mt. Hope Lab equipment upgrades. The Air Sample Report Card was revised in order to facilitate the analysis process in the laboratory. Additionally, the revised card allows the laboratory to calculate total methane liberation for each mine. Advancement in the collection and dissemination of information obtained through air sample analysis will enhance the efforts of enforcement personnel.

22. (Page 5-4, Chapter 5) Instructions for documenting Safety and Health Conferences have been deleted because they were superseded by related procedures in the Alternative Case Resolution Procedures Handbook.

23. (Pages 5-5 and 5-6, Chapter 5) Procedures for issuing 107(a) imminent danger orders have been expanded to include modified instructions issued to the District Managers by the Administrator. These revised procedures clarify the intent of the 107(a) order and the requirements for issuing both the oral and written order.

24. (Pages 6-4 and 6-5, Chapter 6) Instructions for issuance of 103(k) orders have been expanded to include modified

instructions issued to the District Managers by the Administrator. The revised instructions address the need to have the 103(k) order cover the safety of miners in all underground areas of the mine.

25. (Pages 7-2 and 7-3, Chapter 7) Instructions related to notifying the Federal Railroad Administration of track or equipment deficiencies have been added.

26. (Pages 8-11, 8-12, 8-13, and 8-15, Chapter 8) Notetaking procedures revised to include EIQI team recommendations resulting from their follow-up evaluation completed in 1995.

27. (Page 2-4, Chapter 2) This is a deletion of a conflicting requirement related to inspectors traveling with mine examiners. Refer to Item E.1. on page 3-3 for procedures regarding traveling with mine examiners.

28. (Pages 3-12 through 3-12b, Chapter 3) Procedures related to inspections of highwall mining systems, previously issued in PIL I94-V-3 have been incorporated into this handbook. Changes have not been made to these procedures.

29. (Page 4-12, Chapter 4) Rock dust sampling procedures for identifying and sampling areas found too wet to sample were inadvertently excluded from this handbook. We have added the procedures to this update to insure all required areas of the mine are properly sampled.

30. (Page 8-54, Chapter 8) This revision clarifies how on-site activity time is to be recorded on the Time and Activity Sheets.

31. (Pages 2-17 and 2-18, Chapter 2) MSHA's predecessor organization provided procedural instructions regarding abandoned mine maps in a memorandum dated December 17, 1971. The map repositories originally created by the Department of Interior, Bureau of Mines, are now administered by the Office of Surface Mining. This procedure replaces the 1971 instructions and provides guidance to district personnel in processing and maintaining abandoned mine maps in a consistent manner.

32. (Page 3-5, Chapter 3) Procedures were issued in 1995 to provide guidance to CMS&H enforcement personnel for the inspection of roof bolt spacing specified in approved roof control plans. These procedures are now a routine part of regular inspection activities. Permanent roof support

systems approved in roof control plans are designed to ensure a minimum safe standard for the installation of roof support appliances. The Agency recognizes, however, that under normal mining circumstances inadvertent deviations can occur in the installation of roof bolts as a result of machinery limitations or human error. When this occurs the integrity of the support system is not necessarily compromised.

33. (Page 3-18 to 3-20, Chapter 3) Historically, Bureau of Mines parameters were used for the configuration and the minimum size requirements in order to identify when mine property roadways were considered elevated in relation to the surrounding topography.

34. (Pages 8-31 and 8-32, Chapter 8) The revised definition was needed to designate a status for idle mines that are not sealed, and are not planned to be sealed, but no work is being conducted except for security checks and water sampling or treatment. Numerous requests have been received from mine operators to not abandon or seal the mine in order to attract potential buyers or wait for the coal market conditions to improve before resuming production related activity.

35. Pages 3-5, 3-12, 8-17,18) Incorporated provisions previously issued in Coal Self-Rescuer Inspection Procedures Handbook, No. PH00-V-11.